

# FLIGHT

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AND AIRSHIPS

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## EDITORIAL COMMENT



FROM Atlantic flights, some successful, some tragically fatal, and some filled with ghastly possibilities (happily unfulfilled) of drowning children, it is a relief to turn to a project which is practical and should be useful. Capt. R. H. McIntosh proposes to make a rapid flight this autumn down the West Coast of Africa with the object of drawing attention to the commercial possibilities of this route. He is emphatic in disclaiming any intention of setting up the West Coast route in rivalry to the more easterly route established by Imperial Airways; but he believes that the West Coast has possibilities of its own which deserve fuller investigation.

For one thing, the great circle route between England and Capetown runs very near the West Coast, and this route will therefore be followed by the Fairey (Napier) long-range monoplane when it sets off in the early winter on its attempt to fly non-stop to the Cape. Capt. McIntosh is of the opinion that if he, with the help of another pilot, were to make a quick flight of about three days from England to the Cape at about the same time, the dual event would draw much public attention to the West Coast route, and lead business men along that route to consider the best way in which the aeroplane can give them help. When he flew over a great part of Africa last year with Mrs. Westenra, he made some enquiries about the business prospects of a West Coast air route, and found that important business interests in South Africa were keenly interested in his ideas and assured him that if such an air line could be built up it would most certainly find any amount of traffic.

Another consideration is that if British aircraft hold aloof from this route much longer, they will leave it open for foreign enterprise, and before long a combined French-Belgian-German syndicate may establish themselves on it. French air lines are very active in North-West Africa, and the Belgians are also active in the Congo. Junkers' interests have, it seems, gained control of civil air transport in the

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### DIARY OF CURRENT AND FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in this list:—

- Sept. 17. Thanet Air Race, from Nethercourt Flying Ground, Ramsgate.
- Sept. 17. S. African Air Rally, Rand Aerodrome, Germiston.
- Sept. 17-25. London Gliding Club Camp, Dunstable.
- Sept. 18. Women Engineers' Flying Meeting at Stoneham Park, Southampton.
- Sept. 24. Essex Aviation Display at Hillmans' Aerodrome, Maylands, Brentwood.
- Sept. 24. No. 45 Sqdn. R.A.F. Reunion Dinner, at Overseas League Club House, Park Place, S.W.1.
- Sept. 25. Ladies' At Home at Sywell.
- Sept. 25. Yorkshire Trophy Air Race Meeting.
- Sept. 25. Gordon Bennett Balloon Race, Basle.
- Sept. 26. Charter Day Pageant, Hendon Aerodrome.
- Oct. 1. Bristol and Wessex Ac.C. Garden Party.
- Oct. 1-23. Berlin Sporting Flying Exhibition.
- Oct. 6. "Air Navigation." Lecture by Capt. N. Macmillan, before R.Ae.S. and G.A.P.A.N.
- Oct. 8-9. Chatham Air Display.
- Oct. 18. Aero Golfing Society: Cellon Challenge Cup, West Hill G.C.
- Oct. 20. "Flying Conditions on the West Coast of Africa." Lecture by Flt.-Lieut. W. G. Pudney, before R.Ae.S.
- Nov. 3. "Civil Primary Training." Lecture by H. G. Travers, before R.Ae.S.
- Nov. 10. "Airscrew Design." Lecture by D. L. Hollis-Williams, before R.Ae.S.
- Nov. 18-Dec. 4. Paris Aero Show.
- Nov. 24. "Evolution of Aircraft Wireless Equipment." Lecture by Sqdn.-Ldr. H. Leedham, before R.Ae.S.
- Dec. 1. "Behaviour of Fluids in Turbulent Motion." Lecture by A. Fage, before R.Ae.S.
- Dec. 8. "Air Survey." Lecture by Lieut. J. S. A. Salt, before R.Ae.S.
- Dec. 15. "Airship Development Abroad." Lecture by Sqdn.-Ldr. R. S. Booth, before R.Ae.S.
- 1933.
- Feb. 2. "Operation of Aircraft Over Tropical Routes." Lecture by A. Plesman, before R.Ae.S.
- Mar. 23. "Seaplane Research." Lecture by H. M. Garner, before R.Ae.S.

Union of South Africa, and the three might possibly combine to establish a West Coast air service, which, if it saved a considerable time in transit to Europe, might prove a serious rival to the existing British service.

Two years ago, in our issue of September 5, 1930, we published an article from a correspondent, who signed himself "Ikona," a man with much practical knowledge of Africa, in which the argument was put forward that, as trade is apt to follow the course of the rivers in Africa, and as there are more rivers flowing down into the Atlantic than there are on the other side of Africa, it followed that the correct commercial air route should lie down the West Coast. If that be the case, and if a foreign line should be established down that coast, we British might have to bewail one more lost opportunity. It is to draw attention to this possibility before it is too late to do anything that Capt. McIntosh proposes to make a flight more or less along the great circle course. He hopes, we understand, to obtain the use of a fast aeroplane, of a Service type, which, when stripped of its war load should put up a very high average speed. He intends to take a second pilot with him, and so to demonstrate that his flight is a normal effort and not a mere record-breaking stunt which chiefly advertises the physical endurance of the pilot. In such conditions, he thinks that a record flight could be made even without much flying in the dark.

Such a flight, made with such a practical object, would certainly be well worth while. In the present day it has become almost an axiom of flying that if a flight imposes any great strain upon the pilot it is not a useful flight. Things were different when Hinkler made the first solo flight in a light aeroplane to Australia in 16 days. That flight taught a number of lessons. Now, however, most of the possible stunt flights have been made, and little remains for the professional record-breaker but to reduce the time over one of the old routes by a few hours at a great cost of sleeplessness and sleepiness. We are very glad that Capt. McIntosh's project does not come into the category of blatant record breaking, but has a serious object which may perhaps develop into something really useful and valuable.

While we cordially approve the scheme to investigate the possibilities of the West Coast route, we do not by any means run away with the idea that the West Coast is the one and only route for British enterprise. For one thing, the British route is already established along the valley of the Nile and the Great Lakes. The *fait accompli* is not lightly to be disturbed, and Capt. McIntosh has no desire to disturb it. Moreover, it is very doubtful whether it would have been wise for the first British air line to have been laid down on any route other than where it has been laid down. Egypt is a country which has had a long and intimate connection with Great Britain, and south of Egypt the Imperial Airways route lies entirely across parts of the map which are usually coloured red. Traffic from Great Britain naturally makes for British Possessions and Dominions. Mails from Great Britain for the French Sahara or the Belgian Congo are never likely to be so heavy as those for the Sudan, Kenya, Uganda,

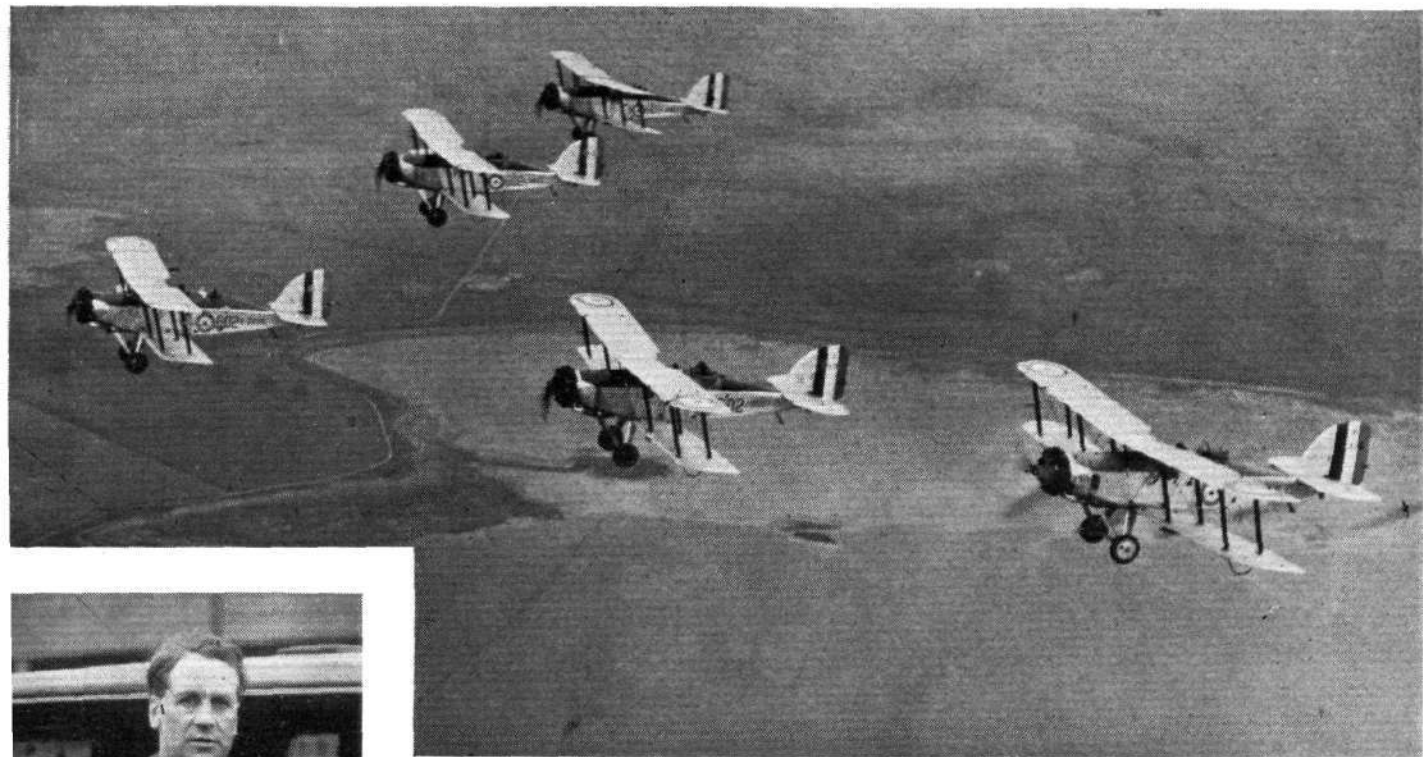
Tanganyika, the Rhodesias and the Union of South Africa. British passengers are more likely to visit British Colonies than foreign possessions. When almost the whole route is laid inside the British Empire, the great advantage of unity of control is possible, and it is greatly to be doubted if an airway operated by a combine of French, Belgians and German-South African interests could ever become so efficient an organisation as one managed throughout by Imperial Airways.

Looking ahead, we hope before very long to see the Boulton and Paul mailplane tried out along the African airway, and we hope to see it make a success. If and when it does, we may further look forward to see a fairly sharp division made between the mail service and the passenger service of Imperial Airways. That, we believe, will be a great advantage; but until the mailplane is ready for trial flights it is futile to blame Imperial Airways for not carrying the mails to Capetown at top speed. When the separate mail service is in working order, we believe that our mails will reach Capetown faster by a British line than by a foreign combine, even though that latter should fly along the shorter route. There is, of course, the possibility that the future mail service may be sent by Imperial Airways down the West Coast, while passengers continue to fly by the present route.

It is natural that thoughts should turn first to the mails between this country and Capetown; a secondary, but still very important, matter is that of the mails to the countries on the route. If there is a complete chain of British lands from Egypt to the Cape on the one side, on the other lies the great Colony of Nigeria and the lesser ones of the Gold Coast, Sierra Leone and Gambia. Aircraft cannot export tin in bulk from Nigeria, as they can carry gold and diamonds from the Rand and Kimberley. Still, we should be the last to deprecate the claims of the West African Colonies to the services of air transport. Whether those claims are, or will be in the future, greater than those of Kenya and Tanganyika, we should not like to decide. Nigeria and its fellow colonies lie to the west of the great circle course, and to include them in the projected air route would be to sacrifice some of the advantages of flying to Capetown along the straight line. What we really want to see is an air service to every part of the British Empire established just as soon as it is likely to justify its existence. What we do not want to see is British colonies left to the tender (or otherwise) mercies of a foreign air line, and, likewise, we dislike intensely the idea of a foreign mail service reaching Capetown more speedily than a British service manages to do.

For all these reasons we hold the opinion that Capt. McIntosh is doing very good work in attempting to draw attention to the possibilities of the West African route, and we wish him all good fortune on his flight. If he makes the southward flight very fast, and comes back slowly, making trade enquiries as he comes, which is, we believe, his intention, he will do particularly valuable service to the cause of British air transport. For the rest, we think that definite plans must be left in abeyance until the mailplane has been tried out very thoroughly.





THE CLYDE AND CLYDESDALE : Sqd. Ldr. the Marquess of Douglas and Clydesdale, M.P., C.O. No. 602 (City of Glasgow) (Bomber) Squadron. Above : five "Wapitis" of his squadron over the Clyde. (FLIGHT Photos.)



## Scotland's Auxiliaries

Visits to Renfrew and Turnhouse

By MAJOR F. A. de V. ROBERTSON, V.D.

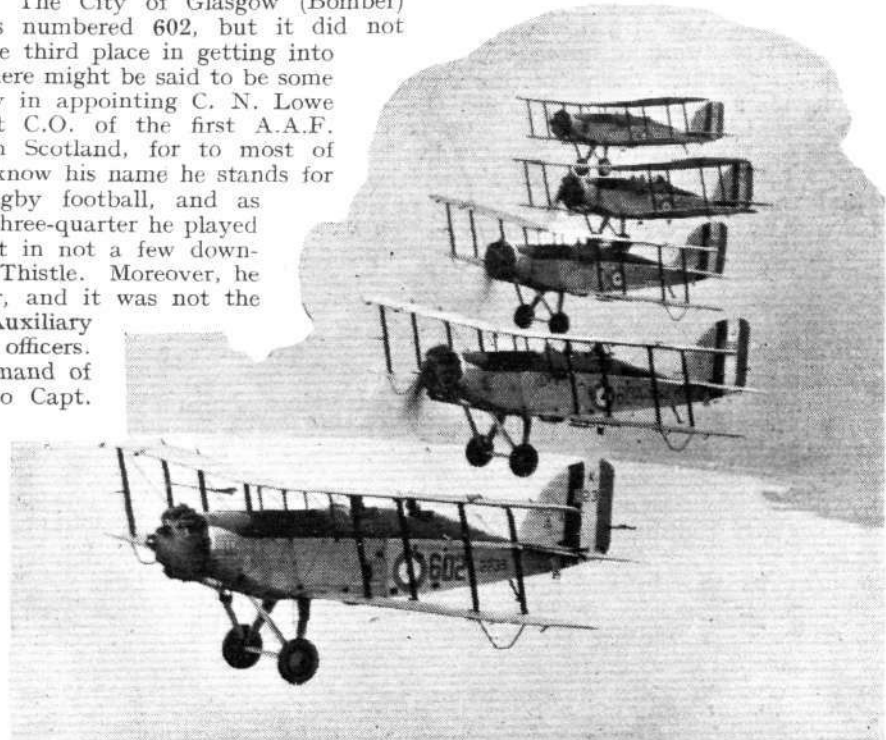
### No. 602 (CITY OF GLASGOW) (BOMBER) SQUADRON

ON October 7, 1925, Squadron Leader C. N. Lowe, M.C., D.F.C., flew a D.H.9.A. from Hendon to Renfrew aerodrome near Glasgow, and this is claimed to have been the first flight of an aircraft belonging to the Auxiliary Air Force. If that be the case, Scotland can claim to have been a trifle beforehand with England, even though the two lowest numbers of the A.A.F. squadrons are 600 and 601, and they belong to the City and County of London Squadrons. The City of Glasgow (Bomber) Squadron is numbered 602, but it did not wait to take third place in getting into the air. There might be said to be some gentle irony in appointing C. N. Lowe as the first C.O. of the first A.A.F. squadron in Scotland, for to most of those who know his name he stands for English Rugby football, and as right wing three-quarter he played a great part in not a few down-falls of the Thistle. Moreover, he is a regular, and it was not the

attention (and is now not the practice) that Auxiliary squadrons should be commanded by regular officers. From the first it was intended that the command of the City of Glasgow Squadron should go to Capt.

D. Latta, M.C., but he was not able to take up the position until February 1, 1926, and for giving the squadron a start and setting it working on right lines, no better man than Lowe could have been found. He has since commanded No. 43 (Fighter) Squadron, and is now on the staff of Anwell College.

It is much harder to start an Auxiliary squadron than it is to carry on the work, and there were many things to handicap the City of Glasgow Bomber Squadron at start. It was given the aerodrome at Renfrew, which is small, and has bad approaches. It was then in bad condition and had to be reconditioned. It rejoiced in one four-bay hangar. It is a considerable



ECHELON ON THE RIGHT : Westland "Wapitis" (Jupiter) of the City of Glasgow B.S. in a difficult formation. (FLIGHT Photo.)



**MIST ON THE FIRTH OF CLYDE :** The City of Glasgow Squadron is used to flying in murky weather.  
(FLIGHT Photo.)

distance outside Glasgow. There was no town headquarters, but the 52nd Lowland Division of Territorials came to the rescue by letting the squadron use a hut in their headquarters in Jardine Street. The Territorials also helped nobly with the social side, which always plays an important part in getting a volunteer squadron or battalion together, and promoting a feeling of community among the non-commissioned ranks. Lowe's first adjutant was Flt. Lt. Gilbert Martyn, who is now a squadron leader on the staff of the Aircraft Depot at Hinaidi, in Iraq. Lowe and Martyn opened recruiting in November, 1925, and in a week had 55 names of airmen on their books. By the end of the year 49 airmen had been fully enrolled, and 234 applications for enlistment had been received. There was plenty of enthusiasm to be found in Glasgow, but not all who applied could be accepted. As yet there were no Auxiliary officers.

In February, 1926, Capt. Latta took over command. He was an experienced pilot, and had flown fighters. Instruction was begun on the D.H. 9A., and before long suitable gentlemen were approved for commissions, and sent off to learn to fly. In those days the A.A.F. did not undertake *ab initio* flying instruction, as it does now. Probably the adjutant was too busy on other work. Now, in all the established squadrons, the flight commanders have taken over a great deal of the work which used to be done by the adjutant and his assistant, and so the latter are free to give flying instruction. The Force, as a whole, is pleased by the new arrangement. It can control the instruction now, which it could not do when the newly joined officers took out an "A" licence at a private flying school. Some men may have that flair for flying which enables them to go straight from a light aeroplane to a Service bomber, but such men are hardly the majority. Flying schools are much more elaborately organised now, and they keep closely in touch with R.A.F.

training methods; but, even so, there is much to be said in favour of each squadron training its own pilots.

In April, 1926, Sir Hugh Trenchard, Chief of the Air Staff, inspected the squadron, and that year it went to training camp at Leuchars. Its muster at that camp comprised two D.H. 9A.'s, two Avros; four A.A.F. officers, 83 A.A.F. airmen and 22 regular airmen. It shows the enthusiasm of the infant squadron that during that camp all the officers made voluntary parachute drops. About the same time, too, the squadron started a "Soccer" team.

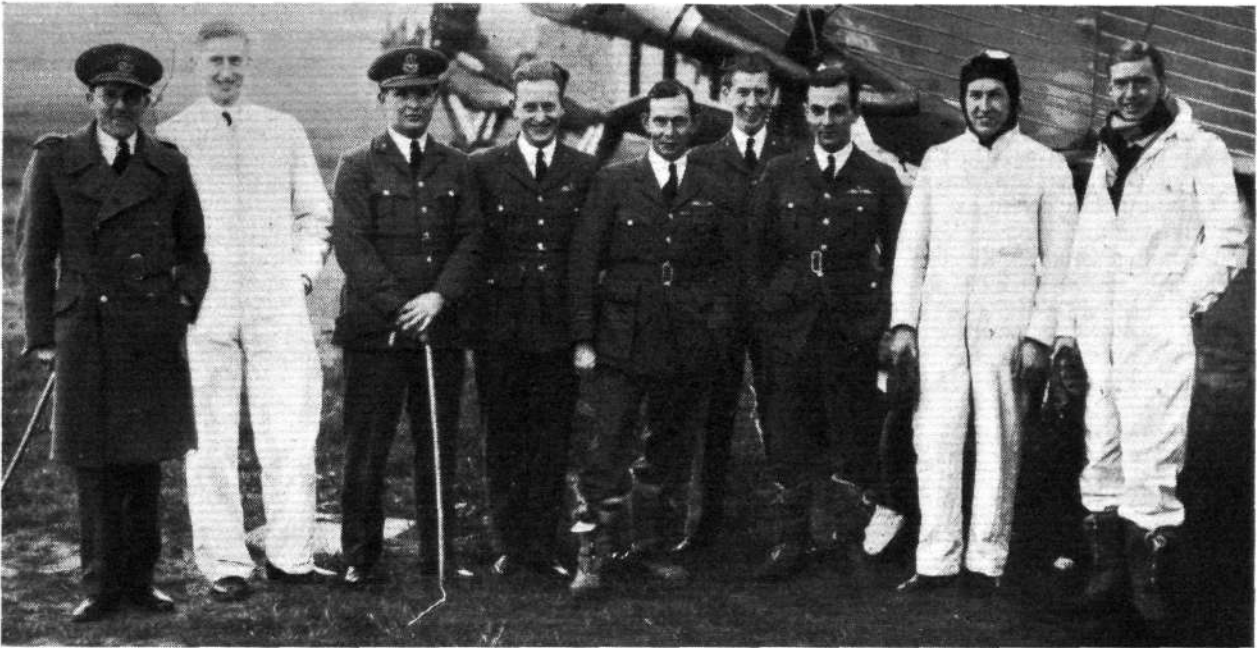
The year 1927 saw a notable advance in many directions. New town headquarters were instituted at 49, Coplaw Street, Glasgow, and these were inspected by H.M. the King on July 12. The squadron provided a guard of honour on that occasion, and this, too, was inspected by His Majesty. In the same year Sqd. Ldr. Fullerton took over the command of the squadron from Sqd. Ldr. Latta, and the Marquess of Clydesdale, who is the present C.O., received his first commission in the squadron. Another event of the year was the re-equipment of the squadron with Fairey "Fawns" in place of the D.H.9A's.

The year 1929 saw a further advance made, for "Wapitis" began to arrive. In this year, too, the squadron achieved the great honour of winning the Esher Trophy, which was duly presented to them by Sir Hugh Trenchard.

In May, 1931, the Marquess of Douglas and Clydesdale, M.P., heir of the Duke of Hamilton, took over command of the squadron. He has taken a certificate at the Central Flying School. He has also very considerably helped the squadron by supplying a bombing range at Dungavel in his own grounds. Under his command the squadron has still further increased its all-round efficiency.

This squadron is proud of having supplied a number of officers to other A.A.F. squadrons, including Nos. 600, 604, and 605. Cynical Sassenachs may remark that this is but one more instance of the drift of Scotsmen





Some 602 B.S. Officers : (Left to right) F/O. R. B. Horstmann (Accountant Officer), P/O. E. A. Howell, P/O. D. W. Law, F/O. T. B. Smith, Flt. Lt. G. S. Hodson (Adjt.), P/O. C. M. B. Renshaw, Flt. Lt. A. D. Farquar, F/O. B. C. H. Ogilvie, Flt. Lt. A. D. McNab. (FLIGHT Photo.)

southwards. But how, we would ask, could London (to say nothing of Birmingham) get on without its Scots? Those who pore over the pages of the Air Force List (and a very profitable way it is of passing some spare time) may perhaps have been surprised to see in the list of No. 12 (Bomber) Squadron the name of Flt. Lt. D. F. McIntyre printed in italics. The solution is that the names of all A.A.F. and Special Reserve officers are so printed, and this officer really belongs to the City of Glasgow Squadron, but has been attached to No. 12 B.S. for a year. As No. 12 B.S. has long been one of the very crack squadrons of the R.A.F., the distinction is remarkable. Other officers of the squadron have attended courses on armament, range finding, wireless telegraphy, air photography, and other subjects. The second adjutant, J. Whitford, is now a squadron leader and commands No. 24 (Communication) Squadron.

The establishment of the squadron is three regular officers (adjutant, assistant adjutant, and stores officer) and 25 A.A.F. officers, including the medical officer and the chaplain, 43 regular airmen and 156 A.A.F. airmen. In May, when the representatives of FLIGHT visited Renfrew, the squadron possessed 15 fully-trained General Duties officers and one officer training for his "A" licence. The airmen were up to establishment. Of course,

it would be easy to admit more officers, for there are always plenty of applicants for commissions, but not all applicants appear likely to make officers up to the standard which this squadron has set itself. That standard is rightly very high. Much more is required of an officer than mere ability to pilot a "Wapiti." He must, for example, be able to command men; and to command Auxiliaries requires different qualities than are called for in commanding regulars. It is a simple matter to give an order to a man who is bound by law to obey it; though even in the regular Services some officers are able to get more out of their men than others can do. When commanding unpaid volunteers, greater tact is called for; though even then an order must be an order and not a request. Special responsibilities devolve on the flight commanders, for to them are entrusted pretty well all the details of running their flights and keeping their machines and engines serviceable. The officers of the Renfrew squadron come from all sorts of professions. Naturally, the profession of chartered accountant is represented. Not long ago a learned and (?) witty judge, in an English court, remarked that it was possible to be a Scotsman and not a chartered accountant, but it was unusual. There are stockbrokers, business men, a bleacher, an official of the firm of Babcock & Wilcox, to say nothing of the M.P.



THE HUCKS STARTER : About to start a "Jupiter" in one of the squadron's "Wapitis." (FLIGHT Photo.)

who commands and who is in the natural course of events destined for "another place." Once in uniform, all outside interests are forgotten. The only thing which matters then is the number and width of the stripes on the cuff. That is how a squadron ceases to be a collection of individuals and becomes a corporate body—an organisation fit and ready to play its part in the defence of the country.

The City of Glasgow B.S. has had a long spell of the very undesirable aerodrome at Renfrew, and they have learnt to put their "Wapitis" down on the small and muddy landing ground with skill and accuracy. But better things are in store. Next spring they hope to move to a new and better aerodrome at Abbotsinch, with a good house for an officers' mess.

For the last two years the squadron has come to

Hawkinge for its annual training, and this year it took part in the Air Exercises of Air Defence of Great Britain. The south of England is very different country from the valley of the Clyde and the Highland hills to the north of Glasgow. This makes it all the more creditable that the squadron was very successful in finding its way to its objectives over country which was far more familiar to the regular squadrons which are permanently stationed in the southern part of England. It met attacks by the "Bulldogs" and "Furies" of the regular fighting squadrons, and its gunners showed that no liberties could be taken with them. In these exercises the companion squadron was No. 603 B.S. from the City of Edinburgh, and these two worthily upheld the credit of Scotland in the air.



**PIPERS OF THE NORTH:** The City of Edinburgh Bomber Squadron maintains its pipe and drum band, though kilts and plaids have not yet been adopted. (FLIGHT Photo.)

### No. 603 (CITY OF EDINBURGH) (BOMBER) SQUADRON

Let us now move on from Glasgow to Edinburgh. It is a startling change to make when so few miles have to be covered. Glasgow is a great commercial city, the second largest in Great Britain. Edinburgh is the exact antithesis, the political capital of Scotland, mainly a residential place, and rivalled only by Oxford in its claim to be the most beautiful city in Great Britain. Familiar in Scottish literature as "Auld Reekie," the smoke of its chimneys is nothing compared to that of Glasgow. It is, however, much troubled with *haar*, or sea mist. The two cities have this in common, that each stands on a beautiful Firth, flanked by hills, and as unlike as well could be the low-lying estuary of the Thames. If the Clyde is the entry to a commercial port and is (at times) a centre of shipbuilding, the Forth harbours the naval port of Rosyth, which, as every schoolboy knows (Does he?—ED.), was the headquarters of Beatty's Fleet during the Great War. To the south lie the Pentland hills and the Muirfoots; to the north the hills of Fife.

Edinburgh's A.A.F. squadron is fortunate in its aerodrome. Turnhouse lies a few miles to the west of the city on a broad level plain near the southern shore of the Forth. The famous railway bridge of that name is close by. Turnhouse is extensive and has good open approaches. Once a stream ran across the middle of it, and the place where it ran is now not quite so good as the rest of the aerodrome, but, otherwise, the surface is good. An excellent wide road runs out of Edinburgh past the gate of the aerodrome on its way to Linlithgow and Stirling. There is a good omnibus service between Edinburgh and Turnhouse, which is a great convenience to the Auxiliary airmen. The hangar accommodation is adequate. The offices and officers' mess are of the wartime hut variety. Despite that, the mess is a very cosy and comfortable little place, and the officers keep up a very pretty little

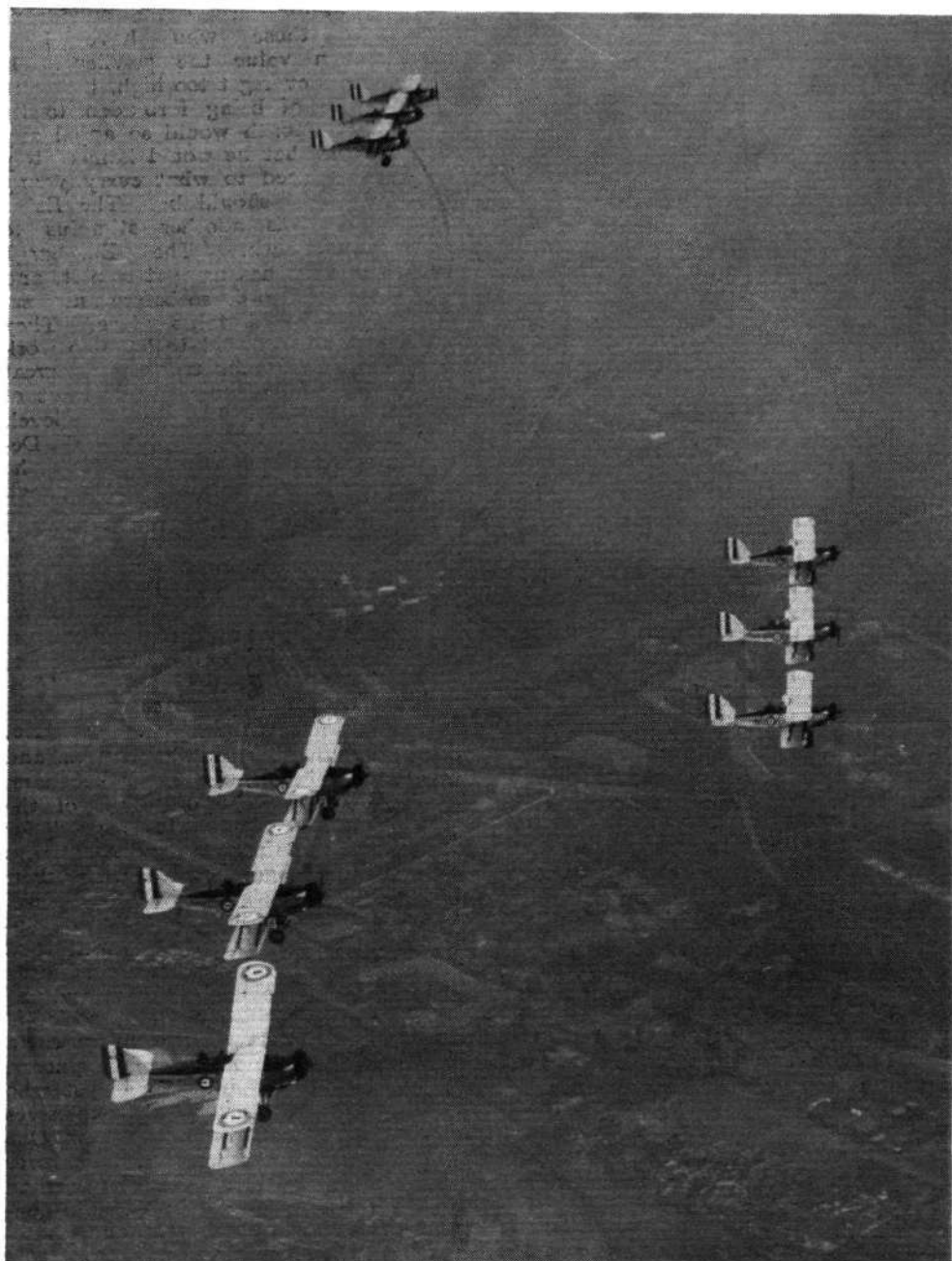


**THE MACHINE GUN RANGE:** The Armament Officer, Flt. Lt. J. L. Jack, M.C., instructs an air gunner, while the C.O., Sqd. Ldr. Murray-Philipson, looks on. (FLIGHT Photo.)

garden outside it. Altogether it is a pleasant place to visit, and to see the spirit of the squadron is quite inspiring.

The City of Edinburgh squadron was formed in 1926,



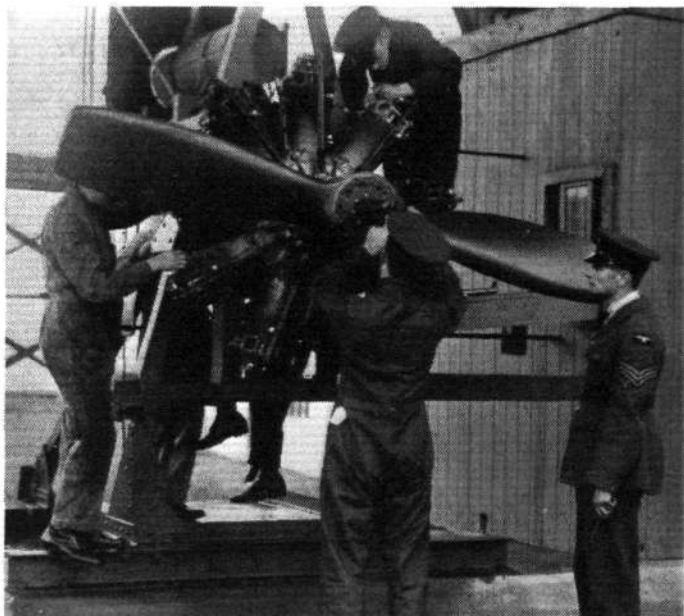


**FLIGHTS IN LINE ABREAST:** No. 603 B.S. indulges in many attractive formations. The dressing of the nine Westland "Wapitis" is particularly good. (FLIGHT Photo.)

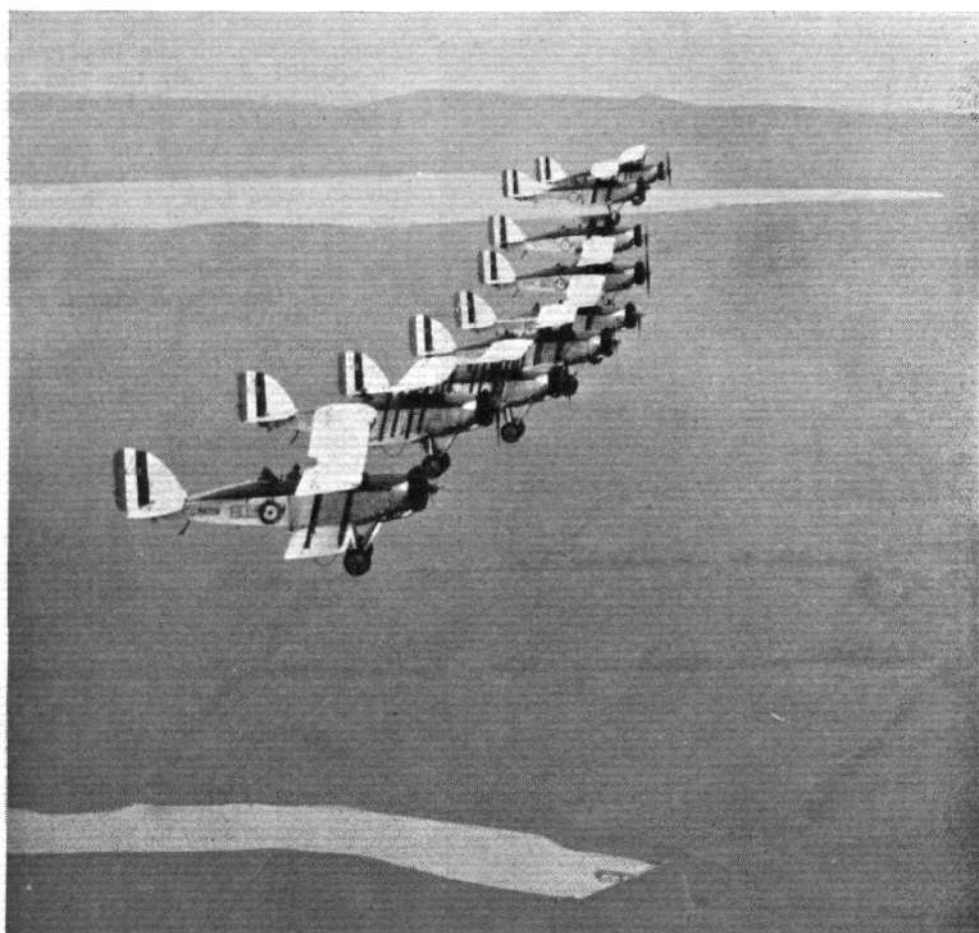
just a year after the sister squadron in Glasgow. The first C.O. was Sqd. Ldr. J. McKelvie, A.F.C., who commanded until April 14, 1931, when he handed over to Sqd. Ldr. H. R. Murray-Philipson, the present C.O. The Hon. Air Commodore of the squadron is the Earl of Stair, D.S.O. The Douglas-Hamilton family is largely connected with the A.A.F. movement in Scotland. As was mentioned above, the eldest son of the Duke of Hamilton, the Marquess of Clydesdale, commands the Glasgow squadron. His two younger brothers, Lords Malcolm and Nigel Douglas-Hamilton, are both officers of the Edinburgh squadron. Lord Malcolm was originally in the R.A.F., and was in No. 3 (Fighter) Squadron. He flew one of the "Bulldogs" which engaged in mimic combat with a bomber at the 1930 Display at Hendon. Then he was posted as assistant adjutant to the Edinburgh squadron, in which his brother, Lord Nigel, was already an officer. Last May he resigned his regular commission, but remains on in the squadron as an A.A.F. officer.

Sqd. Ldr. Murray-Philipson is a man out of the ordinary. A successful business man, who lives at Peebles in the heart of the Muirfoot hills, he keeps his own "Moth" and his own aerodrome. He also supplies the squadron with a bombing range in his own grounds. There he pitches a camp, and his persuasive powers induce members of the Territorial Royal Engineers to camp there and mark the bombing practice of the squadron. He is very

energetic, too, in the Boy Scout movement. In July this year he brought his squadron to camp at Manston and led it throughout the Air Exercises, when the bomber squadrons, under Sir Tom Webb-Bowen, were kept at it hammer and tongs, morning and evening, raiding the targets of Northland and meeting the attacks of the fighters. Once the squadron was rather badly mauled, but it immediately got some of its own back by making a raid in which it found its way in, bombed the target and flew out again without being intercepted by any of the watchful fighters. Considering that the weather was mostly clear, this exploit was one of which any squadron, regular or Auxiliary, was justifiably proud. No sooner was the camp at Manston closed, than the C.O. hurried on board ship and sailed for Ottawa, where the Empire Conference was just opening. That gives some idea of the restless energy of Sqd. Ldr. Murray-Philipson. To get a true idea of the work which he does for his squadron, one needs to visit them at Turnhouse. The officers are mostly a young lot, and all as keen as mustard. They take their squadron work very seriously, and devote practically all their leisure time to it. All through the summer they all come down to Turnhouse every Monday and Friday evening, and at the week-end. One officer has only missed one day in five years. He is the veteran of the squadron, Flt. Lt. Jack, M.C., who is officially the accountant officer. Having been in the Machine-Gun Corps in the war, and won a Military Cross in it, he also acts as armament officer and is in charge of the shooting range, of which an illustration is given in this article. In the group of officers he can be distinguished by his medal ribbons. Other officers



**ON THE TEST BENCH:** Airmen of No. 603 B.S. about to run up a Bristol "Jupiter." (FLIGHT Photo.)



**SQUADRON LINE ABREAST :** No. 603 B.S. has to contend with weather. The Firth of Forth is covered with haar or sea mist. (FLIGHT Photo.)

are able to boast or complain that they have had no tennis for three years. On one occasion the squadron was chosen to fly to Hendon on a public holiday. Three of the officers were in London on business, so on the eve of the holiday they all took train to Edinburgh and next day flew back to Hendon with the squadron. Next day they flew back to Edinburgh and then took train to London once more, to resume their business. The number of flying hours put in by the squadron is very large. The pilots get lots of practice, and, consequently, the formation flying is of a very high standard. Our photographs show that they practise various formations and do all of them well.

This keenness makes discipline easy. It is not easy to

get admitted to the squadron, and those who have been chosen value the privilege. If spirits ever get too high, the mere threat of being forbidden to fly for a month would so appal any officer that he would immediately be reduced to what every young subaltern should be. The Esher Trophy is another stimulus to hard work. The Edinburgh squadron has not yet won it, and it means to do so before universal disarmament takes place. They say it is a grind to have to work for it, but the trophy is a great incentive. The average merit of the pilots in flying is very level. When the A.O.C. No. 1 Air Defence Group visited Turnhouse, he went up as a passenger with each of the officers, and they all, even the newest pair of wings, gave him good flights.

The squadron is fortunate in having lots of good company. Renfrew is well within half-an-hour's flying, and the members of the two squadrons constantly visit each other. Just across the water are Donibristle, where No. 100 (Bomber) Squadron lives, and not far off in Fife is Leuchars, the shore base of flights of the Fleet Air Arm. It is good for both when regulars and Auxiliaries can see a good deal of each other, and the sight of "Horsleys" landing on Turnhouse is not uncommon. The visitors will soon be "Vildebeests."

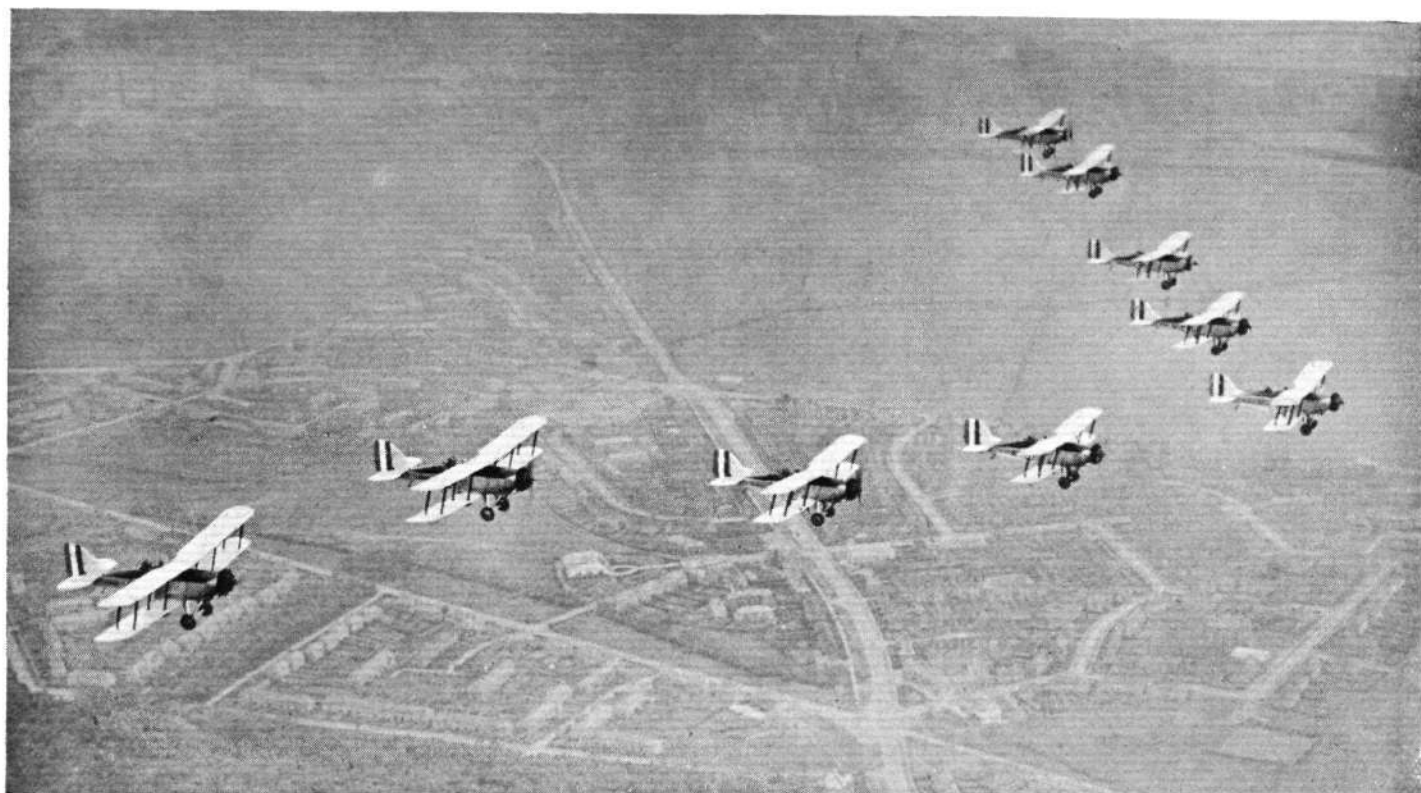
Recruiting A.A.F. airmen in Edinburgh is easy, and the squadron could be doubled in numbers at short notice if required. The men seldom work at their own trades in the squadron, and they are by no means all engineers. One of the best N.C.O.'s is a postman. A chemist who joined up was thought likely to be keen on the explosives in bombs, but he preferred the photographic section. One air gunner is the son of a minister of religion. Whatever their calling in civil life, they do their work very well in the squadron. The "Wapitis" are kept in splendid condition, and the test-bench, shown in one of our photographs is a joy to the fitters.

A distinguishing feature of the squadron is its pipe band,



**OFFICERS OF NO. 603 B.S. :** (Left to right) P/O. P. Gifford, F/O. T. M. McNeil, F/O. A. M. Mitchell, Mr. G. Gatturall, P/O's. E. H. Stevens, I. D. Shields, F/O. D. M. T. MacDonald, F/O. C. H. W. Bolders, P/O's G. A. Reid, I. Kirkpatrick, Flt. Lt. I. E. C. Watson, F/O. A. Wallace, Sqd. Ldr. H. R. Murray-Phillipson, C.O., Flt. Lt. J. Jack, M.C., Flt. Lt. R. Legg. (FLIGHT Photo.)





**SQUADRON "V" : The nine "Wapitis" of No. 603 B.S. over one of the coast towns of the Firth of Forth.**  
(FLIGHT Photo.)

which we also illustrate. It is very smart. That can be seen from the picture, and we assure our English readers that it pipes very well. At present it does not wear kilts, and that is a point which is rather worrying the squadron. What would a kilt of Air-Force blue look like? For ourselves, we can see no reason why it should not look quite as well as the kilt of the London Scottish, which also has no tartan. Certainly No. 603 B.S. would feel happier and more contented if it could put the pipers and drummers into kilts; and the Nine of Diamonds, which is the Curse of Scotland, would lie heavy on the head of any Air Ministry official who dared to say "Nay." Perish the thought! Are there not as many Mac's in the Air Ministry as in any other great institution in London?

#### Royal Air Force Squadrons

Other descriptive articles concerning the work of various R.A.F. Squadrons, etc., have been published in FLIGHT as follow:—

H. M. Aircraft Carrier *Glorious*. May 16, 1930.  
No. 4 (Army Co-operation), South Farnborough; No. 17 (Fighter), Upavon;  
and No. 33 (Bomber), Eastchurch. June 27, 1930.

No. 601 (County of London) (Bomber) Sq., A.A.F. (at Lympne). August 15, 1930.  
No. 43 (Fighter) Sq. (Tangmere). September 19, 1930.  
No. 2 (Army Co-operation) Sq. (Manston). December 19, 1930.  
No. 101 (Bomber) Sq. (Andover). April 24, 1931.  
Nos. 204 and 209 (Flying-Boat) Sq. (Mount Batten). June 12, 1931.  
"1890-1912-1931." (A brief Outline of the Growth of the Royal Air Force). June 26, 1931.  
Cambridge University Air Sq. (at Old Sarum). July 10, 1931.  
Central Flying School (Wittering). July 17, 1931.  
Oxford University Air Sq. (at Eastchurch). August 7, 1931.  
No. 600 (City of London) (Bomber) Sq., A.A.F. (at Tangmere). August 21, 1931.  
No. 605 (County of Warwick) (Bomber) Sq. (Castle Bromwich). April 1, 1932.  
No. 40 (Bomber) Sq. (Upper Heyford). May 13, 1932.  
Nos. 7 and 58 (Bomber) Sq. (Worthy Down). June 10, 1932.  
A visit to H.M.S. *Exeter* of 2nd Cruiser Squadron, Home Fleet. June 17, 1932.  
Oxford University Air Sq. (Eastchurch). July 22, 1932.  
Cambridge University Air Sq. (Netheravon). August 5, 1932.  
No. 1 Air Defence Group (Auxiliary Air Force and Cadre Sqs.). August 12, 1932.  
No. 100 (Bomber) Sq. (Donibristle). August 19, 1932.



**THE MEN WHO MAKE THE WHEELS GO ROUND : The C.O. and N.C.O.'s of No. 603 (City of Edinburgh) (Bomber) Squadron at Turnhouse Aerodrome.** (FLIGHT Photo.)



# Private Flying & Gliding

## ESSEX AVIATION DISPLAY

The Lord Lieut. of Essex (Brig. Gen. R. B. Colvin) and the Lord Mayor of London (Sir Maurice Jenks) will be present at the Essex Aviation Display being held at Maylands aerodrome, Romford, on September 24. The fly-past will take place to open the programme at 2.45 p.m., after which there will be all the usual flying events common at such pageants. Col. Shelmerdine, the Director of Civil Aviation, together with the Lord Mayor and Lady Mayoress and the Sheriffs, will drive from the Mansion House to Heston airport, from whence the party will fly to Maylands aerodrome in the Spartan "Cruiser" and a Westland "Wessex," leaving at 11.30 a.m. The pilots taking part in the Display are asked to arrive at Maylands by 11 a.m. in order to be presented to the Lord Lieut. before the Lord Mayor's arrival. Visiting pilots are asked to note that a red flag will denote left-hand circuits or a green flag right-hand circuits; they should report to the Control Office on arrival. Pilots desirous of taking part in the Romford-Clacton-Romford race, for which cash prizes of £30, £20, and £10 will be given, are asked to apply to W. Courtenay, 8, New Court, Lincoln's Inn, London, W.C.2, before September 19 for entry forms. All entrants are asked to arrive at the aerodrome on the day of the race before 10.30 a.m. in order to allow the handicappers, Messrs. Rowarth and Dancy, time to complete their work. It is understood that an escort of the No. 600 (Bomber) Squadron, A.A.F., will accompany the flight of the Director of Civil Aviation and the Lord Mayor from Heston to Romford.

## WOMEN'S MEETING AT SOUTHAMPTON

The Women's Engineering Society will be holding a flying meeting (the programme for which has been arranged by Miss Mollie Olney with the Northamptonshire Aero Club) at Stoneham Park, Southampton, on Sunday, September 18, during the tenth annual conference of the Society, at 2.30 p.m. Further details can be obtained from Miss C. Haslett, 46, Kensington Court, London, W.8.

## BRISTOL AIRPORT

The second of the two regular annual flying meetings always held at Bristol will take place on October 1. This latter is the Bristol and Wessex Aeroplane Club's Garden Party, and is meant to be an informal meeting for members, visiting pilots and their friends, as opposed to the

meeting held earlier in the year, which is intended for the benefit of the general public. There will be quite an interesting programme arranged on this occasion, including a visit of one of the Imperial Airways H.P.42 type of aircraft. There will also be two competitions open to pilots holding "A" licences. Visitors arriving by air before 1.45 p.m. will be entertained to lunch by the club, and those who can stay the night will be guests of the club at a dance at the Spa Hotel. Evening dress is essential for this dance. The Imperial Airways machine will leave Croydon for Bristol at 10 a.m., returning to London on Sunday morning at 10 a.m. Seats for the journey can be booked on application to the Manager of the Airport, the fare being £2 single and £3 16s. return.

## AUTOGIROS FOR THE PRIVATE OWNER

The use of "Autogiros" by private owners is rapidly becoming quite a common thing. Already there are three registered in the name of private individuals, while the amount of instruction being taken by private pilots on this form of flying machine is really quite considerable. In the north we have Mr. J. Macalpine, who is the owner of G-ABUG. This is a C19 Mark IV two-seater, and when he is not using the machine himself he has an arrangement with N.F.S. at Yeaddon whereby the firm may give instruction to other pilots on it. At Hanworth, Mr. J. McMullen is also the owner of a similar machine, G-ABUC, and this gentleman likewise has made arrangements with N.F.S. for his machine to be available for instruction. Down in Kent there is Mr. R. C. Ramsay, who flies at the Kent Flying Club. In London the numbers of fully-qualified "A" private pilots is quite appreciable, and it has been estimated that the average "A" licence pilot is fit to go solo on an "Autogiro" after one hour's instruction. Mr. R. C. Brie, the firm's chief pilot, has been doing a great deal of flying, and during August the company's pilots flew over 160 hr. Mr. Brie is now in Holland, where he will be demonstrating the "Autogiro" for several days from Eindhoven.

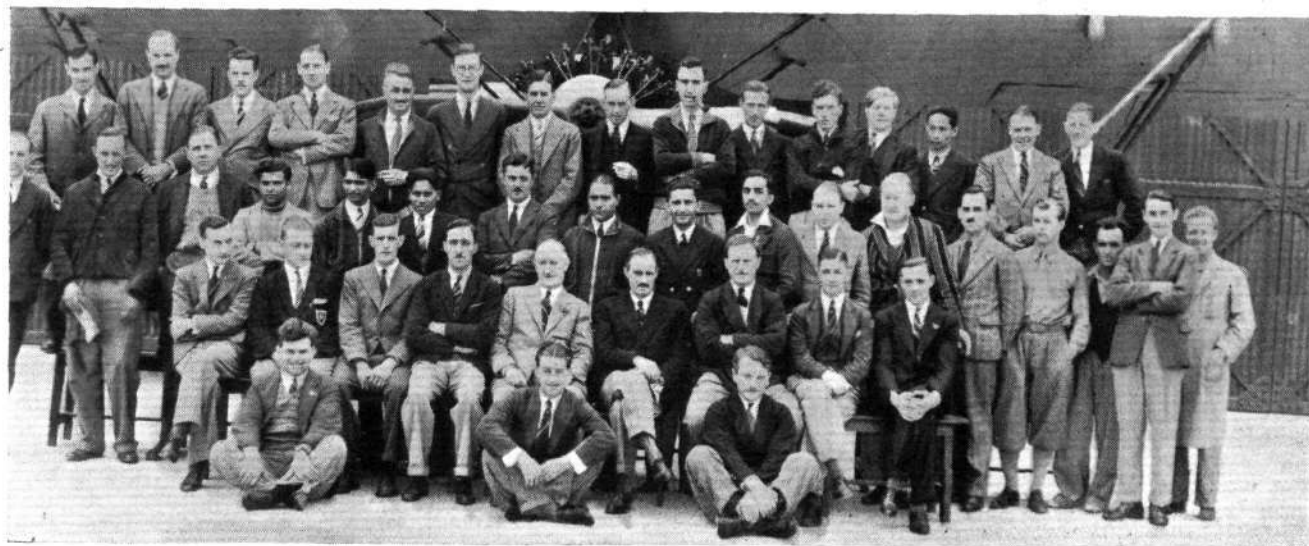
## BROOKLANDS

Very bad weather has hampered flying at Brooklands during the last week, but despite this the enthusiasm of the many pupils has not been damped, and every afternoon and evening the instructors of the various ground classes have been more than fully occupied. During the



NIGHT LIFE AT HANWORTH: Our photograph (taken on a modern ultra high-speed plate without any special lighting) shows what an exceptionally fine club-house they have at Hanworth Park. (FLIGHT Photo.)





An A.S.T. group of Staff and Pupils.

(L. to R., sitting):—Flt./Lt. J. B. VEAL (Flying Instructor), F./O. R. C. BERLYN (Flying Instructor), Mr. A. R. O. McMILLAN (Chief Ground Instr. and Flying Instr.), Flt./Lt. H. F. JENKINS (Chief Flying Instructor), AM. SIR JOHN F. A. HIGGINS (Chairman A.S.T., Ltd.), Grp./Cpt. R. J. F. BARTON (Commandant, A.S.T., Ltd.), Flt./Lt. R. P. P. POPE (Flying Instructor), F./O. M. C. DUDGING (Flying Instructor), Mr. H. SMITH (Engine Instructor).

week Mr. Benjamin completed his tests for the "A" licence, while the machine used by the pupils of the College of Aeronautical Engineering was kept very busy. The Brooklands Instructors' Certificate No. 1 has just been issued to Mr. Ruutz Rees, and No. 2 to Mr. Gadgil, an Indian pupil. The Brooklands Instructors' Course is based on that of the C.F.S., and is only awarded to those whose flying the Brooklands school instructors consider entirely satisfactory. Mr. Gadgil also obtained the Guild of Air Pilots' Instructors' Certificate. A Badminton Court has been installed in front of the club-house, and it promises to oust track running as a means of keeping fit.

#### IN TASMANIA

The Tasmanian section of the Australian Aero Club has recently been successful in obtaining a "Moth" (Cirrus II) on loan from the Department of Defence. This will therefore mean that the Aero Club will have three "Moths" available as well as spare Cirrus engines for each. One of these aircraft will be stationed at Western Junction, one at Brighton aerodrome, and the third will be available for the instructor to take wherever he is training a class of pupils.

#### YORKSHIRE TROPHY MEETING

The first annual race for the Yorkshire Challenge Trophy presented by Mr. R. Blackburn will be flown at Sherburn on Sunday, September 25, over a course of approximately 200 miles, starting and finishing at Sherburn. The first prize will be the Trophy and £50, second £30, and third £15. The race is open to all types, and will be flown over two triangular courses, each of which must be covered once by the competitors. Various ground marks will be laid out on these courses, which must be reported on landing, thus ensuring that pilots have adhered to the correct course. Besides this larger race there will also be a short one of about 15 miles, entitled "The Sherburn Short Handicap," the prizes for which will be £20, £10, and £5 for first, second, and third respectively. The handicapping for both races will be in the very capable hands of our old friends, Messrs. Rowarth and Dancy.

#### THE RACE TO NEWTON HOUSE

The race, which was arranged from Yeadon aerodrome to the landing ground attached to the Newton House Hotel, Londonderry, near Leeming, Yorks, was won, out of a field of six machines, by Mrs. McAlpine in a "Moth" (Cirrus). This was the only machine flown by a woman pilot, which speaks well for the instruction of Capt. Worrall, of the Yorkshire Aeroplane Club. Other entries included Mr. G. V. Williamson, "Moth" (Cirrus); Mr. Micklethwaite, "Moth" (Gipsy II); Mr. W. Humble, "Bluebird"; Mr. G. Caldwell, "Moth" (Gipsy I); Mr. F. McGeven, "Moth" (Gipsy II). Nearly 50 visitors were entertained to tea in the Newton House Hotel after the race.

#### AIR SERVICE TRAINING

Between 600 and 700 hr., most of which were dual instruction, were flown at Hamble during August. Eleven new pupils arrived to take courses of varying length, among them being Mrs. Mollison (Blind and Advanced Flying), Lt. Col. E. Lanciani and Lt. de Wittemberski, of the Italian Air Force (Blind Flying), Mr. Simaika, who had been sent over by the Egyptian Government to obtain the "B" Pilot's Licence, Major Vetch (Chief Instructor of the Bombay Flying Club) and Mr. Bhagat B Lal (Instructor, Delhi Flying Club). The total numbers in residence at the end of the month were 24 pupils and 12 R.A.F. Reservists, the pupils representing ten different countries.

Mr. C. E. Gardner, who is studying for his "B" Pilot's Licence, Second-class Navigator's and Ground Engineer's Licences and Air Ministry W.T. Air Operator's Certificate, was joined by his parents, who also underwent flying instruction.

Messrs. Berlyn, Ngo Kok Tie and Norman qualified for their "X" Licence for the care and maintenance of parachutes, and six pupils, including Lt. Com. G. Rodd, R.N., and Mr. Nap qualified for the A.S.T. Blind Flying Certificate. Three pupils took a course of Seaplane training and three more received night-flying instruction. Mr. R. T. Nunn, an American, spent his holiday learning to fly and has now left for Switzerland.

#### HANWORTH

Members of the Insurance Flying Club have been carrying out a considerable amount of flying at Hanworth on the club machine G-AAMV. Miss Murray continued her dual instruction on the "Autogiro," and several Hanworth members made cross-country flights on Wednesday evening. Night flying was carried out until midnight, and five members had dual instruction on Friday. Mr. A. Reid carried out the cross-country tests for his "B" licence.

#### AT GATWICK

Mr. Hunter, of Chester, arrived at the aerodrome on Thursday, September 8, with the first part of his equipment to commence hunterising the surface of the aerodrome at Gatwick. Some 30 acres of the aerodrome are still in an unsatisfactory condition, and it is confidently expected that Mr. Hunter will shortly make this area as admirable as is the rest. Light aircraft will not be incommoded at all throughout the whole progress of the work, but pilots of large aircraft are requested to keep a look-out for tractors in the centre of the aerodrome. An aviation kit "Shop" has been opened and will be ready to do business from dawn to dusk, Sundays included. The new compass swinging base has now been completed, so that private owners may have their compasses swung when they wish. The membership is growing steadily, and the cessation of instructional flying at Croydon has caused a very large number of potential pilots to go further south to this very pleasant aerodrome.

## LIVERPOOL AND DISTRICT AERO CLUB

The hours flown for the first half of the financial year 1932 show an appreciable increase on those of 1931, being 1,555 as against 1,203. The chief items of interest during the past week were, of course, the arrival of the visitors to the *Week-End Aérien* and the Inter-City Race, both of which have been fully reported in FLIGHT for September 9.

## SKEGNESS

Until 5 p.m. the wind prevented Sunday's programme being carried out at Skegness. After that time, however, it abated, and it was decided to hold the race from the aerodrome to Boston "Stump" (the well-known tower of the parish church of Boston). The machines entered were a "Fox Moth" (Gipsy III) flown by Capt. Pennington, a "Puss Moth" (Gipsy III) flown by Mr. Scott, a Comper "Swift" (Pobjoy) flown by Mr. M. Lacayo, a Comper "Swift" (Gipsy III) flown by Capt. W. Styran and a similar machine flown by Flt. Lt. N. Comper. Capt. Styran was first, Flt. Lt. Comper second and Capt. Pennington third, the winner's speed being 147.5 m.p.h. It is rather interesting to note that these three Comper "Swifts," together with that of the Shell-Mex & B.P. Co.

flown by Flt. Lt. Bentley, were the only machines to get through the bad weather and attend the meeting. Flt. Lt. Comper making the journey from Hooton to Skegness in 49 min.!

## THE LONDON AEROPLANE CLUB

The abnormal amount of wind has seriously curtailed flying during the past week. Despite this, however, Mr. Scott McMurdo has completed the tests for his "B" licence. Five machines, flown by Messrs. Oliver, Presland, Briscoe, Lipton and Tangye (the club's second instructor), flew down to welcome Mr. Mollison as the *Empress of Britain* steamed up Southampton Water on Thursday, September 8.

## READING NOTES

Two new foreign pupils have recently joined the Phillips & Powis School, the first being Mr. Thordarson, who is from Iceland. It is interesting to note that the population of his country is exactly the same as that of Reading, namely, 100,000. The other pupil is Mr. Kyaw, a Burmese, and both of these gentlemen are making excellent progress. Mr. W. L. Handley, the well-known racing motorist, has placed an order for a "Bristol Fighter" to be rebuilt for him.



A FAIR ITALIAN VISITOR : Miss Gaby Angelini, an Italian pilot, who is making a solo flight to the principal towns of Europe in her Breda 15, at Heston, where she arrived last week. She has already visited Prague, Berlin, Stockholm, Copenhagen and Amsterdam, and next she will fly to Paris, Lyons, Cannes, Geneva and home to Milan.



## The Latest Atlantic Flight

MR. W. ULBRICH, accompanied by Miss Edna Newcomer—a nurse, who holds a pilot's licence—and Dr. Leon M. Pisculli left New York at 12.15 p.m. B.S.T. on September 13 in a Bellanca monoplane, *American Nurse*, with the object of flying non-stop to Rome. The flight is sponsored by the American Nurses' Aviation Service, and Dr. Pisculli is making the trip "in order to study the reactions" of his companions—various scientific instruments being included in the aeroplane's equipment for the purpose. The *American Nurse* was sighted by the Anglo-American Oil Co.'s vessel *Winnebago* some 900 miles from New York at 11.50 p.m. B.S.T.

## Another London-Cape Record Attempt ?

CAPT. R. H. MCINTOSH is at present engaged on plans for the organisation of an attempt to lower the duration of the London-Capetown flight to three days. McIntosh proposes to follow the west coast route, not only because it is the shortest, but also because he contends that the opportunities for useful British air services on the west coast of Africa are liable to be overlooked, with grave risk of French, Belgian and German companies establishing air routes which would seriously threaten British interests, and would be in direct competition with the eastern route of Imperial Airways, Ltd. Capt. McIntosh has in mind a very fast British service type of aircraft, which by remov-

ing its military load, could be given the range necessary to cover the long stages in daylight "hops," and he proposes to take with him a second pilot so that the flight shall not become a merely useless test of human endurance. When acting as pilot to Mrs. Westera, McIntosh accumulated a good deal of experience of flying in Africa, and while he was with Imperial Airways he earned a reputation for bringing his machine through very bad weather conditions, so that if his plans materialise and he succeeds in obtaining the necessary support, there is little doubt that he will make a flight which will be a credit to British aviation.

## Von Gronau in Tokio

HERR VON GRONAU, who flew from Germany to America via Greenland last July in a Dornier Wal, continued towards Japan from Chicago to Fort Juneau on August 23, his progress thence being as follows:—August 24, Cordova; August 25, Prince Rupert; August 26, Dutch Harbour; August 27, Kanaga; September 1, Attu; September 2, Paramushir, Japan; September 3, Nemuro; September 4, Tokio. He is due to leave Tokio to-day (September 16) and return to Friedrichshafen via Nagoya, Kagoshima, Shanghai, Hong Kong, Manilla, Tarakan, Balikpapan, Sourabaya, Batavia, Mergui, Akyab, Cocanada, Colombo, Mangalore, Bombay, Karachi, Henjam, Baghdad, Limassol, Athens and Rome.



# The Scud II

*A High Efficiency Sailplane especially suitable for groups of "C"  
Licensed Glider Pilots who wish to possess their own Sailplane*



A front view of the Scud II showing the clean lines.

IT has become clear that a gliding club contains too many pilots to operate sailplanes of the high efficiency type economically, because the expenses are mostly due to crashes which can only be avoided by the most rigid selection of pilots.

Thus, there is now a tendency for pilots, when they have gained sufficient experience on club machines—and there is a healthy increase in their numbers in the country—to form themselves into private-owner groups or private owners, and acquire machines of the high efficiency class.

The "Scud II" has therefore been designed by Mr. L. E. Baynes as a high-efficiency sailplane for private owners, and is a development of the well-known "Scud" intermediate machine.

The first "Scud II," the construction of which has just been completed by E. D. Abbott, Ltd., of Farnham, has been built to the order of Mr. N. Buxton, of the London Gliding Club.

The new design was for a machine of 40-ft. span and 100 sq. ft. wing area, and the weight empty 150 lb. These dimensions were of great interest when it was heard that the Darmstadt Academic Group was going to build a machine intended to be of high efficiency of very similar dimensions.

There is thus a notable tendency towards smaller machines, as the improved manoeuvrability that results is to-day considered essential for thermal soaring flights.

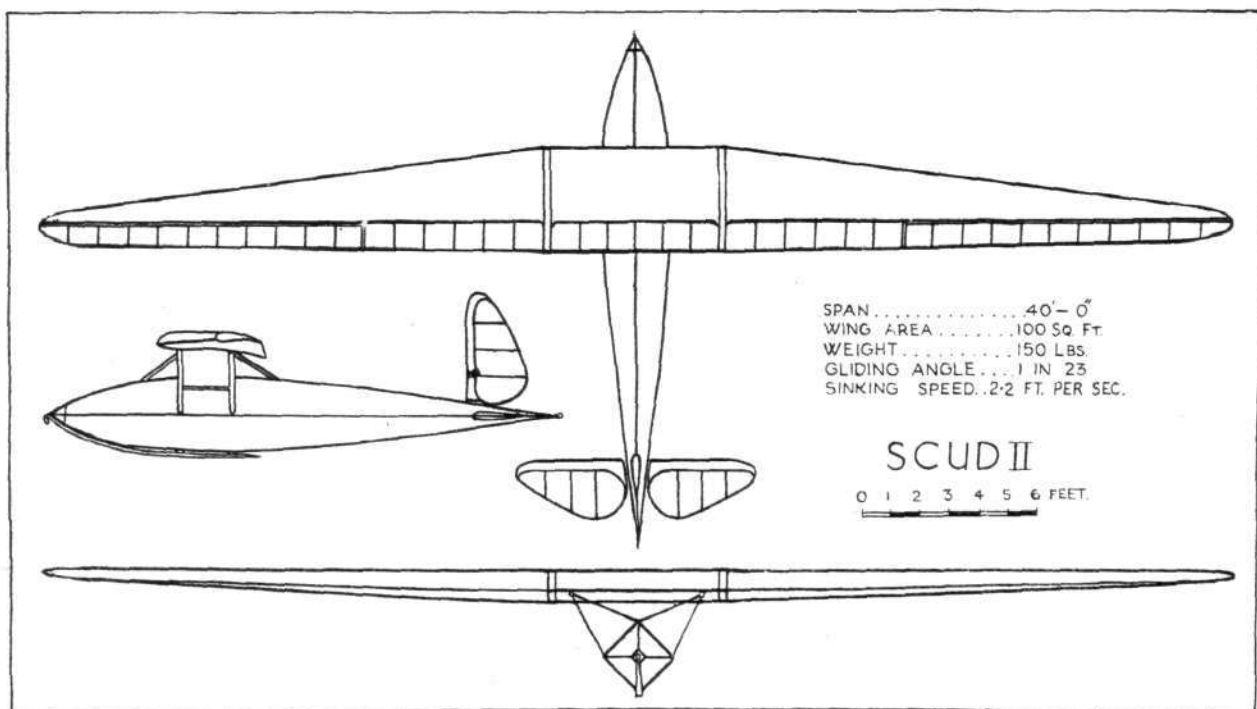
The original "Scud" first showed the way, being less than half the weight and size of contemporary machines in its class, and apparently no less efficient. The "Scud II" is, as might be expected, again half the weight of the conventional sailplane. This is obviously not at the expense of strength, as the general construction is very robust and the design has been passed as up to the necessary load factors by the B.G.A., who now require a factor of 6 for the C.P. forward case. The estimated gliding angle is 23:1, the sinking speed 2.2 ft./sec., and the Schwingungszahl (wing beats) 250 per min.

If these figures are attained, it should prove an excellent private-owner's sailplane, as, apart from the manoeuvrability, small size and light weight are a great advantage from the storage and transport point of view.

The little "Scud" was original in its layout, and many novel features were incorporated in its design; these have mostly been retained in the new machine, such as the simple and light type fuselage, which is a square section turned on edge in the form of a diamond. The length has been increased, but the cross-sectional area remains the same.

The wing is, as before, carried above the fuselage by a system of struts, which also serve to carry the loads over the space for the pilot's cockpit, and thus save considerable fuselage weight.

The neat tail unit, with the interchangeable swivel-type



The General Arrangement of the Scud II.

rudder and elevators, has also been retained.

The biggest departure has been made in the wing design, which is now a single-spar, tapered and twisted wing with a pronounced sweep back of the leading edge, and is of much larger span and aspect ratio, namely, 16:1.

The aileron controls have been redesigned, and now incorporate an automatic release at the wing joints, and a chain and sprocket type differential gear.

A feature of the original "Scud" was the very much higher wing loading than is conventional practice; this has been slightly increased on the new machine, and is now as high as 3.5 lb./sq. ft. The span loading is, however, owing to the light all-up weight, comparatively low.

The price of the "Scud II" will be £150.



Three-quarter front and rear views of the Scud II outside Mr. E. D. Abbott's works at Farnham.



## THE 1932 B.G.A. OPEN SOARING COMPETITIONS

By C. H. LATIMER-NEEDHAM, M.Sc., F.R.Ae.S. (Chief Flight Marshal)

**T**HIS year's B.G.A. open competitions lasted for nine days, from August 27 to September 4, and were held on the Furness Gliding Club site at Moorside, near Askam-in-Furness. The event was marred by unsuitable weather, so that only five days were available for flying.

The entries consisted of seven sailplanes and two secondary machines. No elementary types were entered, and the change-over to high-efficiency gliders was a most noticeable feature. The standard of pilotage showed a marked advance.

The site chosen for the contest is one of the best in the country. The Moorside hills are situated north of Morecambe Bay, on the east of the Duddon Channel. The best slope faces west, reaches a height of 1,000 ft., and extends for several miles to the north. There is a moderately good slope facing east and a very short spur to the south, but nothing of much use for a north wind. The surrounding country is for the most part quite open and free from obstacles, so that there is no lacking of landing grounds.

Low clouds covered the hills on the opening morning of the meeting, with hardly a puff of wind, but by midday conditions had improved and the wind freshened. At 2.55 p.m. Slingsby, in the "British Falcon," made a flight of 13 min. The "Falcon" was constructed by Slingsby from the plans of the German "Falke," and is a most creditable piece of work. On it he taught himself to fly and took his "C" certificate.

Flights in the "Kassel 20" by Humphries, Dewsbury and Collins of 37, 40 and 15 min. followed, and another of 36 min. by Slingsby. The London Club's "Professor" was then launched, piloted by Symmons, who was able to wander in all directions, reaching an altitude of 1,000 ft.

Further flights were made by Dr. Slater in the "Kassel" and Slingsby in the "Falcon."

A moderate E.N.E. wind made flying difficult on Sunday, and nothing of note was accomplished. Interest centred in the arrival of the "Scud II," which made some short test flights. The differential aileron control was found to require some adjustment and the rudder lacked sufficient power, probably due to the shielding effect of the pilot's exposed shoulders. Accordingly a larger rudder was sent for, and this arrived later in the week.

No flying was possible on Monday owing to low cloud, but Tuesday's conditions resembled those of Saturday, with a moderate W.S.W. wind. A "Daily Prize" was offered for the first flight out to Dunnerholme Rock and back to the starting point. The Rock is a large mass of isolated rock that protrudes from the Duddon Sands, and is nearly two miles from the hill face. It was chosen as the turning point in order to ascertain the conditions away from the hill and to induce the pilots to leave the normal soaring zone, thus gaining experience for distance flights.

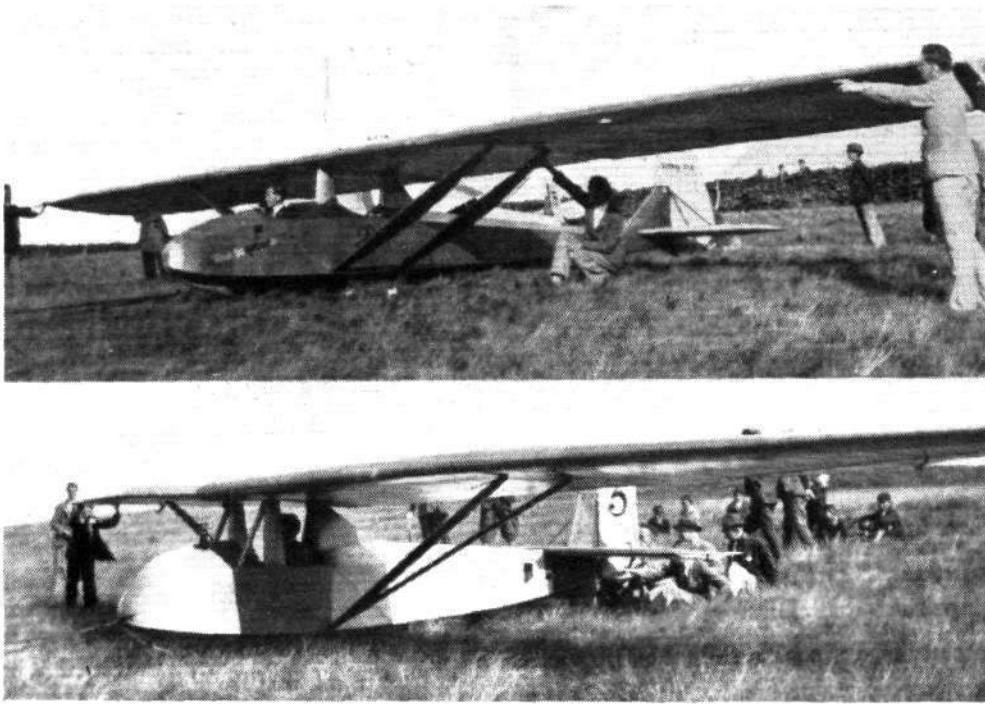
Attempts were made by Slingsby, McGlashen in the "Dagnall" sailplane, and Dewsbury in the "Kassel" without success, after which Buxton succeeded in reaching the objective and returned to the starting point with a fine flight of 1½ hr., reaching a height of 1,700 ft.

On Wednesday a fresh breeze from the W.S.W., almost directly up the hill face, provided conditions that appeared ideal, but, in fact, the pilots found difficulty in remaining aloft, due to the fact that little wind prevailed at the lower altitudes. The "Daily Prize" was fixed for the longest duration flight, and was competed for by the "Falcon," "Hols der Teufel," and "Professor," the winner being Hiscox in the "Hols," with a flight of 32 min. Flying was rendered impossible on Thursday, Friday and Saturday.

### LIST OF WINNING PERFORMANCES

EVENT	CONTEST	MACHINE	PERFORMANCE	ENTRANT	PILOT
EVENT 5	Aggregate flying time, open	"Falcon"	8 hr. 42 min. 30 sec.	Slingsby ..	Entrant.
EVENT 14	Distance contest ..	"Falcon"	13¼ miles ..	Slingsby ..	Buxton.
EVENT 19	Duration contest, secondaries	R.F.D. ..	37½ min. ..	Preston Club	Falla.
EVENT 20	Duration contest, sailplanes	"Falcon"	2 hr. 30 min. 30 sec.	Slingsby ..	Slingsby.
EVENT 21	Duration contest, 2-seaters	"Kassel" ..	2 hr. 38 min. ..	Dent ..	Buxton.
EVENT 22	Altitude contest ..	"Professor"	1,000 ft. ..	London Club	Symmons.
CUPS AND TROPHIES					
Lord Wakefield Trophy, Greatest Distance		"Falcon"	13¼ miles ..	Slingsby ..	Buxton.
MANIO CUP, Longest duration ..		"Kassel" .. 2-seater	2 hr. 38 min. ..	Dent ..	Buxton.
Volk Cup, Aggregate time, Club machines		"Professor"	1 hr. 39 min. ..	London Club	—
DAILY PRIZES AND SPECIAL AWARDS					
Aug. 30	Dunnerholme Rook and Return	"Falcon"	—	Slingsby ..	Buxton.
Aug. 31	Longest duration flight	"Hols der Teufel"	32 min. ..	Hiscox ..	Hiscox.
Special	Consistent good performance	"Falcon"	—	Slingsby ..	Entrant.
Special	Flight of Aug. 30 ..	"Falcon"	—	Slingsby ..	Buxton.





At the top is Humphries in the "Kassel 20" two-seater, and below Slingsby in the British "Falcon."

The closing day of the contest gave good soaring conditions, with a fresh W. wind; two flights of over 2½ hr. and one of 1½ hr. were recorded. Buxton set off in the "Falcon" for a distance flight and landed near Coniston, a distance of 13½ miles, the longest flight in this country made by an Englishman, while Slingsby made a flight of 2 hr. 30½ min. in the same machine. In another flight Buxton and Dent kept aloft for 2 hr. 38 min. in the two-seater. The last flight was made by Falla in the Preston Club's secondary R.F.D., which lasted for 38 min.

One other indication of progress was shown by the complete sets of instruments that were fitted to several machines. These included variometers that are so essential for obtaining the utmost performance from soaring craft. Ground instruments were also used for the first time by the observers, and thus added further interest to the meeting. These included wind strength and direction indicators, a rangefinder and theodolite; all of which points to the increasing technical interest being taken in soaring flight.



## THE BIBESCO CHALLENGE CUP

**L**AST week we made brief reference to the International Challenge Cup presented by Prince Bibesco, President of the Federation Aéronautique Internationale, for a round-the-world contest. Below we give fuller details regarding the rules and regulations governing the award of the cup.

The contest is open to all aircraft, whether heavier or lighter than air, and is reserved for nationals of the countries which are members of the F.A.I. The Bibesco Challenge Cup will be competed for along the following course round the world, determined by the F.A.I.:—Paris, London, Berlin, Rome or Bucharest, Karachi, Tokio, San Francisco, New York, Paris, London, Berlin, Rome or Bucharest.

### Departure, Points of Call, Arrival

The start may take place from: Paris, London, Berlin, Rome, Bucharest, Karachi, Tokio, San Francisco, New York, and the itinerary may be covered in either direction. It is compulsory for each competitor to call at the above-mentioned control points.

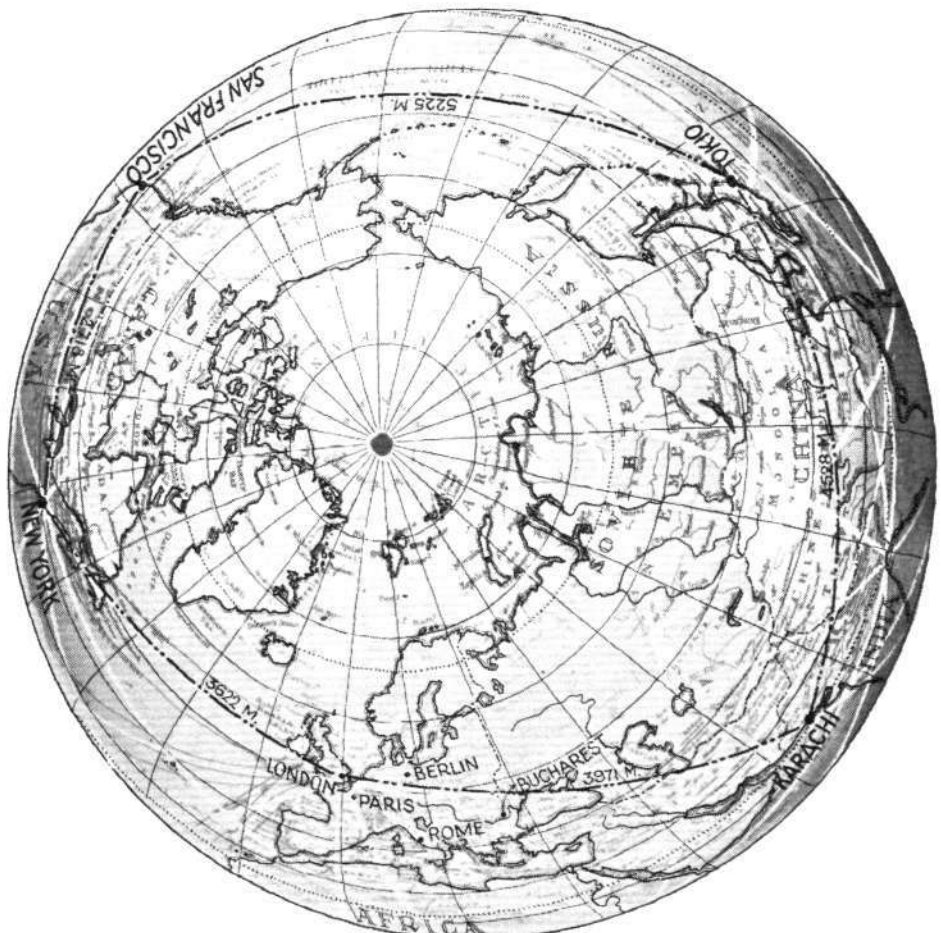
If a competitor starts from Karachi, Tokio, San Francisco or New York, he (or she) must give notice before departure at which of the above-mentioned European capitals he (or she) intends to land. No alteration of decision is permissible after departure.

### Points of Departure or Compulsory Ports of Call

In the case of towns with more than one aerodrome in the neighbourhood, (a) the competitor may choose from which aerodrome a start is made. The aerodrome selected must be situated less than 50 km. (31 miles) from the centre of the town, and the competitor must finish at the aerodrome from which the start was made. (b) The competitor may call at any aerodrome selected.

The chosen aerodromes must be situated less than 50 km. (31 miles) from the centre of the nearest town. Each competitor must specify the selected aerodromes before he starts on the trial.

At the compulsory points of call, each competitor must



This map of the Globe shows the places included in the Bibesco Cup world circuit, with the Great Circle routes indicated by dotted lines, and distances between them.

land his aircraft, and all engines must be stopped. He must conform to the regulations governing the landing and taking off of all aircraft. Any number of landings are allowed during the circuit. Refuelling in the air is permitted.

#### Measuring Times

Times will be measured by a first- or second-class timekeeper. The time of departure will be that at which the machine takes off, and, in the case of aircraft that are lighter than air, from the time that they are completely clear of the ground. The time of arrival will be that at which the competitor crosses the arrival line in flight.

The time to be reckoned when calculating the speed will be the time which has elapsed between departure and arrival, without deducting the length of time spent at the compulsory or optional landing points. The times of departure and arrival will be converted into Greenwich time.

#### Speed of the Winner, etc.

Each competitor can only be classified if he attains, during his circuit of the globe, a speed of at least 100 km./hr. (62.14 m.p.h.). The first competitor to exceed the speed of 100 km. (62.14 miles) per hr. will become the winner of the cup.

A performance can only be considered as exceeding a previous performance if the speed of the former is greater than the speed of the latter by at least  $\frac{1}{2}$  km./hr. (0.31 m.p.h.).

The aircraft shall carry two sealed control barographs, one of which will be an official barograph; the other will be used only in case the first becomes defective. These barographs will have a duration of at least 48 hr. The barographs will be identified and the sheets signed by the Commissaire before the departure on each lap.

At the compulsory ports of call the sheets will be extracted and signed by the Commissaire on arrival, and he will insert in the barographs fresh sheets which he will certify.

A logbook must specify all the incidents during the circuit and record all landings made. This logbook must be certified as correct by the crew. It must be used by the Commissaire at each compulsory landing point.

If a call is made during the course of a lap, written testimony thereof by a witness of the landing will be required, except in the case of "force Majeure," such a case being judged by the Sports Commission of the National Aero Club at the starting point.

#### Identification of the Aircraft

The following cannot be changed on the aircraft:—

(a) In the case of aircraft heavier than air: The fuselage, the lifting surfaces (fixed or revolving), not including the *empennage* and the ailerons.

(b) In the case of aircraft lighter than air: The gondola and the outer envelope. Repairs to the canvas or the envelope are permitted, as also repairs to the ribs or small parts on airships. Engines cannot be changed.

For engines, the crankcase, cylinders, pistons and crankshaft will be identified. These parts cannot be changed. However, for each engine, the competitor will be allowed to carry spares (valves, connecting rods, rings) for one cylinder and one piston per six cylinder engine or less, and two cylinders and two pistons per engine with more than six cylinders.

The above-mentioned parts, as well as the spare equipment allowed, will be stamped before departure. A note of all the identification marks shall be entered in the logbook.

#### Women's Altitude Record

THE French Aero Club has ratified the height record for airwomen established at Villa Coublay on August 20 by Mlle. Maryse Niltz with a height of 32,119 ft. The previous record was 28,744 ft., held by Miss Ruth Nicholls, the American flyer.

#### M. Max Cosyns Honoured

THE King of the Belgians has conferred on M. Max Cosyns, who accompanied Prof. Piccard on his recent high-altitude ascent, the Cross of Chevalier of the Order of Leopold. Incidentally, a stamp commemorating Prof. Piccard's ascents into the stratosphere, and the assistance given by the Belgian National Scientific Research Fund, is shortly to be issued by the Belgian authorities.

#### Polish Airman Killed

LT. ZWIRKO, the Polish airman who won the recent Round Europe flight, was killed on September 11, together

#### Entry, Crew, etc.

The crew, as designated in the crew list, must always be on board the aircraft whilst in flight. Any persons on board who are not mentioned in the crew list may be changed during the trip.

Each competitor must sign the entry form, and the entrant must be in charge of the aircraft. The entry form will specify the members of the crew, who must consist of, in the case of an aircraft having one, two or three persons on board, all persons on board; in the case of an aircraft having more than three persons on board, at least three persons, of whom one must be in charge.

Each competitor must enter his name at the headquarters of the National Aero Club at one of the above-mentioned capitals, at the latest 15 days before the date arranged for his departure. The entry form will specify this date.

The National Aero Club must notify the F.A.I. by telegram of the entry.

The entry will give the competitor the right to make as many starts as he wishes during a period of six months. Each competitor must, 12 hr. before the departure on each attempt, notify the National Aero Club of the place of departure, mentioning the direction of the route to be taken.

Entries may be sent to the headquarters of the Aero Clubs as from June 1, 1933.

#### Entry Fee

Three thousand French francs, which cannot be refunded. The fee will become the property of the Aero Club with whom the entry has been made.

The National Aero Club at the point of departure must get into touch with the National Aero Clubs of the countries in which the prospective ports of call lie, so that they can ensure an adequate organisation.

All expenses in connection with control and telegraphic transmissions shall be for the account of the competitor, who will deposit for this purpose the sum of 5,000 francs at the headquarters of the National Aero Club at the place of departure; this deposit is to be made at the same time as the entry and the balance will be refunded.

If the National Aero Club receives an application for entry from a pilot beyond its jurisdiction, it can only accept same subject to the approval of the National Aero Club within the jurisdiction of which the competitor comes.

#### Travelling Papers

Each competitor must provide himself and his crew with all necessary administrative papers—passport, trip-tych or *Carnet de passage*, flying permits, etc.

#### Award of the Cup

The name of each holder will be inscribed on the cup, stating the place of departure, the dates and times of departure and arrival, the type of machine and engines and the speed attained.

The cup shall remain deposited for one year at the headquarters of the National Aero Club whose member held the trophy, having completed the circuit, at December 31 midnight (Greenwich time).

The cup will be definitely awarded to the National Aero Club of the competitor who, according to the terms of the regulations, shall be the first to reach the speed of 500 km./hr. (310.7 m.p.h.).

The cup, however, shall remain deposited at the headquarters of the F.A.I. until an Aero Club becomes qualified to take charge of it.

Each winner and each National Aero Club, holder of the title, shall receive a replica of the cup in bronze, presented by the F.A.I.



with his observer, when his machine crashed near Teschen, on the Czechoslovak-Polish frontier, when on the way to an air meeting at Prague.

#### Heinkel to Produce Light Aeroplane

THE Ernst Heinkel Flugzeugwerke of Warnemünde inform us that as a result of the good performances put up in the International Touring Competition by the He.64 machines, it has been decided to go into production with a light aeroplane intended for the private owner. The new machine will probably differ materially from the He.64, which was, as pointed out in FLIGHT recently, purely a competition type. Herr Diplom Ingenieur Robert Lusser has been put in charge of the light aircraft section of the Heinkel Works, and will be responsible for the production of the new type. Herr Lusser, it will be remembered, has been associated with the Klemm Works for a number of years, and has thus long experience of the design and manufacture of this type of aircraft.



# THE ROYAL AERO CLUB OF THE UNITED KINGDOM

## OFFICIAL NOTICES TO MEMBERS

### KING'S CUP AIR RACE, 1933

THE Racing Committee of the Royal Aero Club held its Meeting on Wednesday, August 31, 1932.

*Present*:—W. Lindsay Everard, M.P., in the Chair; Flt. Lt. D. W. F. Bonham-Carter; Lt. Col. M. O. Darby, O.B.E.; Maj. A. Goodfellow; Maj. R. H. Mayo, O.B.E.; Wing Com. H. M. Probyn, D.S.O. In attendance: Capt. W. Dancy; H. E. Perrin, Secretary.

The Committee met to consider the regulations for the King's Cup for 1933. The various suggestions sent in to the Club on handicapping, type of aircraft, course, etc., were fully considered.

It was decided to discuss the matter further at the next Meeting, and in the meantime the Racing Committee will welcome any suggestions for next year's Race.

### Official Certified Trials

(Under the Competition Rules of the Royal Aero Club.)

*Entry*.—The Trinidad Leaseholds, Ltd., of London Wall Buildings, London, E.C.4, submitted for trial Regent "Super" Petrol.

*Object of Trial*.—The object of the trial, as declared by the entrant was to demonstrate that the fuel used in a

duration flight carried out by the Hon. Mrs. Victor Bruce was similar in all respects to that sold under the name of Regent "Super" Petrol at roadside filling stations.

*Description of Aircraft*.—Saro Windhover Flying-Boat, fitted with three D.H. Gipsy II motors.

*Duration of Flight*.—The flight commenced at 11.58 hr. on August 9, 1932, and terminated at 18.25 hr. on August 11, 1932. The total duration of the flight was 54 hr. 27 min.

### Certificate

THIS IS TO CERTIFY that during the above Official Trial samples were taken of all fuel supplied to the aircraft. These samples were examined and their characteristics were found to conform in all respects with those of samples of Regent "Super" Petrol, purchased by the Royal Aero Club at roadside filling stations, during the period of the Trial.—GORELL, Chairman; HAROLD E. PERRIN, Secretary.

Offices: THE ROYAL AERO CLUB,

119, PICCADILLY, LONDON, W.1.

H. E. PERRIN, Secretary.

### Sir Samuel Hoare Flies to Balmoral

SIR SAMUEL HOARE, Secretary for India, left Cromer by air on September 12 for Balmoral, where he will be Minister in Attendance on the King for a few days.

### New D.H. Twin-engined Aircraft

NEW types of aircraft emanating from the de Havilland Aircraft Works at Stag Lane are always of great interest, and the latest, the D.H. 84, bids fair to be of particular interest because it would seem to be the outcome of a definite demand. Mr. Hillman, whose businesslike tackling of the air transport problem has created so much controversy recently, has now placed an order with de Havillands for six of this new type, and one can safely assume that they will be the type best suited to his requirements for both joyriding and taxi work. They will have two Gipsy Major 4-cylinder, air-cooled, inverted engines, rated at 130 b.h.p., on either side of the fuselage,

which in turn will, it is understood, be between the wings of a normal biplane wing cellule. Cabin accommodation is being arranged for six passengers.

### More Trouble at Mukden

INSURGENT attacks in Mukden have opened a new phase of the Manchurian disturbances. On August 29, during darkness, groups of men in plain clothes, numbering in all about a hundred, entered the guarded zone, burned the hangar in the principal aerodrome, together with the aeroplanes it contained, and ineffectually attacked the northern wireless station.

The Japanese had one man killed and three wounded, and the Manchurians one killed and one wounded. The insurgents are believed to have lost twenty killed and to have carried off a number of wounded. The firing lasted about an hour.



**COSTES AND BELLONTE MONUMENT**: On September 11 M. Painleve, French Minister of Air, unveiled a monument, shown above, at St. Valéry-en-Caux commemorating the transatlantic flight by MM. Costés and Bellonte on September 1, 1930. Both the airmen were present.

# Air Transport

## AUSTRALIA—ENGLAND AIR MAILS

THE recent announcement, to which we referred the other week, that the Royal Dutch Air Lines (K.L.M.) had offered to convey the air mails from Europe to the Australian coast with the introduction of larger and faster machines on October 1, and without any guarantee of revenue, has created considerable interest in many quarters of Australia, and has again focussed attention on the work of the Dutch Air Lines. Having operated regularly over the 9,000-mile route between Amsterdam and Batavia for some years, the Dutch company has decided to still further improve the excellent service provided, and the new programme, which comes into operation on October 1 of this year, includes the use of larger and faster machines, in which there will be sufficient additional capacity available for the Australian mails. A reduction of the usual eleven days between Amsterdam and Batavia to a proposed schedule of nine days makes the service of still greater value, and would thus enable mails from Europe to reach Wyndham in twelve days by a regular weekly service.

If there were no intention to re-arrange Australian air services, and if there were no real desire to create an all-British air mail service between Australia and England, there would still be quite an appreciable advantage by the Dutch company connecting with the air service on the North-West coast of Australia, and allowing letters to be carried by air to Perth and to Adelaide. For points further east the rail services would be available, but by such a plan some capital cities would lose several days each way in comparison with a more direct distribution by a new air route from Wyndham *via* Alice Springs to Adelaide, which would also connect with Q.A.N.T.A.S. service at Newcastle Waters for Brisbane.

There are thus three organisations negotiating for an Australia-England air mail link—the Q.A.N.T.A.S., West Australian Airways, and Australian National Airways group; the Larkin Aircraft Co.; and K.L.M. One of the proposals, presented by A.N.A., was for a service between Wyndham and Rangoon at 3s. 3d. per mile, or between Wyndham and Delhi at 3s. 6d. per mile, thence by Imperial Airways or any other British operating company.

A committee of inquiry into Australian aviation was set up by the Commonwealth Government last month, and it is not only considering the plans submitted for the



Sketch Map of Australia and its Airways.

Australia-England service, but also the resolutions carried at an Air Convention held in June, together, probably, with the vote of a ballot, or referendum, submitted by the Convention to everyone interested in the aviation industry in Australia (to which we refer below).

The plans now before the Government provide for the much-desired all-British service, together with a re-arrangement of internal routes to secure the full benefits of saving 50 per cent. of the time now taken for mails to reach all Australian capital cities from London, and with the splendid example set by the Dutch and the valuable results achieved, the future prospects for these plans can be more accurately forecast. The safety of multi-engined land machines over long sea stretches has been proved by the Dutch to be greater than was usually considered to be the case, while the value of wireless has been established beyond all doubt. Add to these the knowledge that the public is now more fully alive to the value of air mails and would most certainly support a regular service that made such a spectacular saving in time, and there is every reason to expect that the early inauguration of the England-Australia service can be looked for with complete justification. It is to be hoped, however, that it will be an all-British concern.

## NATIONAL AIR CONVENTION REFERENDUM IN AUSTRALIA

IN July the Australian National Air Convention committee issued ballot papers to everybody interested in the aviation industry and requested them to vote on 13 questions. These questions incorporated the policy agreed on at the meeting of the Convention, and which was forwarded to the Minister for Defence.

The questions to which voters were asked to indicate themselves for or against were:—

1. ENGLAND-AUSTRALIA AIR MAIL CONNECTION.—That, provided an additional subsidy grant can be obtained, tenders be called for the inauguration of an aerial mail connection to establish a through England-Australia air mail service.

2. TRAINING.—That a credit of £25 be made to each pupil pilot qualifying for an "A" licence under flying instructors licensed by the Defence Department, to be used for further flying with the organisation with which he gained the "A" licence, and that a bonus of £50 be paid to each pilot obtaining his "B" commercial licence, together with £50 payable to the organisation

with which he qualified. A bonus of £10 to be paid to each "A" or "B" pilot each time his licence is renewed. Gliding pilots to be paid bonuses as under, when they qualify to international standards: "A" gliding licence, £1; "B" gliding licence, £2; "C" gliding licence, £10.

The issue of training agreements, equipment and provision of hangar accommodation by the Defence Department to be discontinued.

3. INTERNAL AIR MAIL SERVICES.—That tenders be called for all aerial mail service contracts and renewals. That steps be taken by the P.M.G. and Defence Departments to replace inland motor coach mail services with aircraft, particularly in S.W. Queensland, Central and North Australia, and Western New South Wales, where little increase in present cost is likely to be involved. No internal air mail service covered by one single contract to exceed 1,000 miles.

4. AIR MAIL CONTRACT CONDITIONS.—That air mail contractors be unfettered by contract conditions, and that, with a view to reducing subsidy rates, contractors be permitted to provide any reasonable type of aircraft of their own selection from time to time provided it caters for the traffic offering, and provided it maintains a reasonable schedule, and that such aircraft carry registration certificates and certificates of airworthiness issued by the Civil Aviation Branch.



5. **INSURANCE.**—That insurance companies issuing comprehensive policies covering aircraft be subsidised in order to make aviation an attractive investment for the private owner and the investor, by giving them the benefits of comprehensive insurance at reasonable rates.

6. **AIRCRAFT MANUFACTURE.**—That all subsidies, bonuses, etc., payable to the aircraft industry, be increased by 20 per cent. to users of Australian-made aircraft (engines, instruments and wheels excepted), and 5 per cent. to users of aircraft imported in unassembled parts, such as ribs, longerons, etc., and assembled in Australia. That tenders be called for the local manufacture of all aircraft requirements of the R.A.A.F.

7. **AIRCRAFT OWNERS.**—That a bonus of 10 per cent. of the purchase price of new British aircraft be paid to aircraft owners who agree to place their aircraft at the disposal of the Defence Department in time of emergency.

8. **DISTRIBUTION OF CIVIL AVIATION VOTE.**—That the total Civil Aviation Vote be distributed to the aircraft industry on the following basis:—1½ per cent. of total vote Subsidies to Aeronautical Sections of Universities; 1½ per cent. of total vote Bonuses to gliding pilots—"A," "B," and "C"; 10 per cent. of total vote Bonuses to aeroplane pilots "A" and "B"; 40 per cent. of total vote Internal air mail services; 15 per cent. of total vote Aircraft owners not otherwise subsidised; 10 per cent. of total vote Insurance (Comprehensive Policies); 22½ per cent. of total vote Departmental Administration, including 10 per cent. to be spent on selection and inspection, air routes and aerodromes. Inter-Dominion air mail services (only if additional grant to present £140,000 vote provided).

9. **COMMITTEE TO CO-OPERATE WITH GOVERNMENT.**—That a permanent committee be elected by a convention before the end of January in each year, comprising one representative of each of the following sections of the

industry, to confer and co-operate with Government departments and other bodies concerned to develop Australian aviation to the best advantage:—Aero clubs; commercial flying schools; commercial aircraft owners; manufacturers of aircraft and parts; commercial pilots; gliding clubs; subsidised air mail contractors; private aircraft owners; importers of aircraft and parts; private pilots; aircraftsmen, with an independent chairman to be elected by the committee. Also that this committee arranges another convention to be held before December 31, 1932, to report the results of its negotiations with the Government.

10. **DEPARTMENTAL COMMITTEE.**—That the Minister for Defence be urged to alter the instructions to the Departmental Committee, and to arrange for them to sit in public instead of in camera.

11. **CONTRACTS BETWEEN AERO CLUBS AND THE COMMONWEALTH.**—That all contracts between aero clubs and the Commonwealth embody a clause which debars any person with direct or indirect financial interest in the aircraft industry from holding office on aero club committees or executives.

12. **SELECT COMMITTEE TO INQUIRE INTO CIVIL AVIATION EXPENDITURE, AS SUGGESTED BY THE AUDITOR-GENERAL.**—That the Government be urged to appoint immediately a select committee to inquire into and report exhaustively on aviation expenditure in accordance with the suggestion made by the Auditor-General in his last two reports, and to withhold approval for any further commitments until the report and recommendations of the select committee have been considered.

13. **INQUIRIES INTO ACCIDENTS TO BE HELD IN PUBLIC.**—That inquiries into accidents be held in public by an independent board, all findings to be published promptly, in order that the public will know the true cause of such accidents.

## AIR MAILS TO SOUTH AMERICA

### A German Development

IT would seem that interesting developments are in hand regarding the air service between Europe and South America, and that the time is not far distant when this route will become quite a busy one, with both aeroplanes and airships. As already reported in FLIGHT, the French Aeropostale Co., which operates the combined air-steamship service between Paris-Dakar-Port Natal and Pernambuco, is having a large Blériot flying-boat constructed to take the place of the fast steamers operating over the ocean section of the route.

In this connection it may be added that as the Argentine Government's financial support for this service will be withdrawn at the end of the year unless the service becomes an all-air one, construction on the Blériot flying-boat is being hurried forward in order to put it on the route this year.

Meanwhile the German Luft Hansa Co. are making active preparations for their Berlin-Buenos Aires air service. This

consists of the somewhat ambitious scheme of employing an aeroplane "mother ship" which will be stationed in the middle of the South Atlantic on the route flown by the Luft Hansa machines—Dornier flying-boats.

For this purpose Luft Hansa have acquired the North German Lloyd 5,000 ton cargo boat *Westfalen*, which is now being re-equipped for the job. She will be fitted forward with a powerful catapult for launching the Dornier flying-boats (not the Do-X type, but an improved "Wal"!); a crane for lifting the flying-boats out of the water; fuel and spares, stores, and wireless equipment, etc.

It is further reported that the Luft Hansa Co. are negotiating with the French Aeropostale Co. with a view to collaborating in the operation of the Europe-South America air services.

Thus, with the Zeppelin airship service in addition, the South Atlantic will soon look lively—but where are the British activities in this direction?

#### "Graf Zeppelin"

THE German airship *Graf Zeppelin*, which left Pernambuco on September 3 on her fifth return flight from Brazil, landed at Friedrichshafen on September 7. After a short delay the airship started on its sixth journey to Brazil on September 12. So far the regular service of the *Graf Zeppelin* to South America has terminated at Pernambuco. On this trip the airship will for the first time extend her trip to Rio de Janeiro, and by doing so will inaugurate a new extension in the express route to South America. This inauguration will enable passengers to reach Rio de Janeiro in 3 to 4 days, without changing, which means a considerable saving of time compared with the service in the past. From Rio good connections are given by aeroplane and steamer to Montevideo, Buenos Aires and all places inland, so that the most important South American cities can now be reached from Europe in 6 days. The Hamburg-American Line further inform us that in addition to the present fortnightly service a further departure will take place from Friedrichshafen on October 24.

#### Imperial Airways Traffic

THAT the inward air mail from Africa is now heavier, each week, than the outgoing mail from England, is revealed by statistics which have just become available. Approximately 14,000 letters a week are now reaching London by the inward mails, while the outgoing mail amounts, on an average, to about 12,000 letters a week. Not long ago, in the earlier stages of this service, figures showed that the heavier mail loads were on the services outward from this country. Passengers carried by Imperial Airways between London and Paris reached the record figure of 4,728 for August, compared with 2,480 in August last year.

#### New Desert Air Service Starts

THE new desert air service connecting Palestine and Iraq and providing a through air-rail-sea connection from London to Baghdad was inaugurated by Imperial Airways on September 5. Avro 10 (Armstrong-Siddeley "Lynx") monoplanes are used to fly across the Iraq Desert from Ramleh, near Jerusalem, to Baghdad in 7½ hr., eliminating the present two-day journey by motor-car.

#### A Fast Mediterranean Flight

THE Short flying-boat *Sylvanus*, of Imperial Airways, piloted by Capt. Drew, broke the record last week for the flight from Athens to Alexandria by completing this stage in 4 hr. 42 min.

#### Turkish Air Restrictions

THE Editor of the Turkish journal *Akcham*, Nedj-meddin Sadik Bey—Deputy for Sivas and permanent member of the Turkish Delegation to the League of Nations—has written an article urging his Government to make liberal alterations to the regulations now governing air travel over Turkish territory. He points out that owing to existing restrictions the regular air lines to and from Asia have been diverted to other countries like Greece, avoiding Constantinople, which, by its geographical position, should be a great international air centre.

#### New Japanese Air Services

WE understand that the Japan Air Transport Company will shortly extend its present Dairen passenger and air mail route as far north as Changchun, with a view ultimately to connecting with Soviet Russia's trans-Siberian airways to Europe. The company is stated to have two routes in mind. One plan is to extend the present Dairen route to Changchun, via Anshan, Mukden, Tishling, Kaiyuan, and Supinkai, and the other is to connect the present Keijo (Seoul) to Dairen route with Changchun along the Mukden-Antung railway line, via Tishling.

#### Air Mails to South Africa

THE Postmaster-General announces that, on and after September 17, the latest times of posting air mail correspondence for despatch by the England-India air mail service will be 11 a.m. on Saturdays and for the England-South Africa direct air mail service 11 a.m. on Wednesdays in the air mail letter-box outside the General Post Office, London, and correspondingly earlier elsewhere.

#### A New Barcelona Airport

CLAIMING that Barcelona is considered to be the natural air junction between Africa and America, £125,000 is to be spent on a new aerodrome there which is expected to be used by many new air lines.

# Airport News

## CROYDON

**T**HE Air Ministry's decision to stop flying tuition at Croydon Aerodrome from August 31 last has, as previously noted, resulted in the opening up of two new flying schools at aerodromes which have hitherto been practically unused. Rollason, Muir & Rickard were the first to find an alternative, due to the new restrictions, when they some little time back transferred their school work to Ford Aerodrome, near Bognor, where they have been not only able to retain many of their former pupils, but have also found a number of new ones, three of whom are now ready for their "A" licences.

British Air Transport, Ltd., have taken over Addington Aerodrome, where their school of flying has been successfully carried on since the beginning of the month under the direction of Capt. Anderson. Addington is probably the nearest aerodrome to Croydon, consequently they will not have much difficulty in obtaining an extra machine quickly for pleasure flights at Croydon, should business warrant it. Capt. Penny has made provision for thirsty pupils—he has bought a coffee stall, which he intends to run until the club-house is built.

Up to the present Surrey Flying Services, Ltd., have not announced their intentions with regard to their school work. Each of the three firms is keeping its headquarters at Croydon.

I met Mr. Georges Seversky, the singing pilot, with Mr. Deacon, of Lympne, the other day. Mr. Seversky, who with the use of a "Moth" has recently been performing in Deauville and London the same evening, was thanking Mr. Deacon for the expedient manner in which he has assisted him at Lympne. He complained, however, that he could never get an answering signal from St. Inglevert, whereupon Mr. Deacon related how, in the old days, it was quite a customary thing to circle St. Inglevert a number of times without seeing any visible signs of life, then, suddenly spotting the man who should have been on duty, but who had been digging in his back garden, adjacent to the aerodrome, frantically waving some piece of apparel from the washing line! No doubt Mr. Deacon had some other good stories in store, but time did not permit me to stop and hear them.

The Prime Minister's son, Mr. Alister MacDonald, made use of the air services last Wednesday, when he flew in the Deutsche Luft Hansa 'plane to Berlin, where he visited a building exhibition, thence by air to Rome for a few days' stay before returning to London in sufficient time for the wedding on the 20th of this month of his sister, Dr. Joan MacDonald.

Imperial Airways, it is rumoured, are contemplating the inauguration of a five o'clock afternoon service to Paris

throughout the winter months. If Imperial Airways do start this new service they will have made a considerable stride in the progress of commercial aviation, as during part of this period it will be dark at that time in the afternoon. It will, therefore, be equivalent to starting a night passenger service, which was so strongly advocated by the late Air Vice-Marshal Sir W. Sefton Brancker. No doubt the suggestion for the new service is partly due to the enormous increase in their traffic figures on this route, which go to prove that it is the most popular air service in the world.

Capt. Olley has no reason to complain of trade depression, for he has carried out no fewer than seven special charters this week.

Charles Atkins & Nisbet, Ltd., who acted as Croydon agents to Air Taxis, Ltd., during the past four years, have closed down their business at the Air Port. Air Taxis, Ltd., will, I understand, install their own representative.

Many regular passengers have expressed their disappointment at the termination of the Royal Dutch Air Lines 7 p.m. service to Holland. The service has proved a most popular one, especially to business men who were able to execute a day's work in London, returning to Amsterdam the same evening.

Visitors to the Air Port have cause to meditate when they see a couple of motor cars running about in crazy fashion on the aerodrome. Actually they are being driven by members of Marconi's experimental branch. The cars are fitted with receiving sets and Reid Indicators, and are following courses transmitted from the new directional wireless mast. It is anticipated that the tests will shortly be concluded. The directional transmitting station will then be taken over by the Air Ministry and put into regular service.

Mushrooms on the aerodrome attracted a number of men, who came with baskets to gather them in the early hours of Saturday morning. Aerodrome police and traffic hands manned a motor tractor and soon put the pickers to flight.

Prince Bibesco of Rumania arrived on Saturday evening from Rotterdam in his three-engined Junkers. The Princess arrived almost simultaneously in the Royal Dutch Air liner. They make a point of never flying together in the same aeroplane. Prince Bibesco told me that his visit is purely a social one—"Just to look up a number of old friends and to see anything new of interest," he remarked.

The total number of passengers for the week was 2,046; freight, 74 tons 9 cwt.

HORATIUS



### A Cosmic Ray Flight in Canada

F/O. R. A. GORDON, of the Royal Canadian Air Force, on September 7, made a flight up to 21,000 ft. over Cormorant Lake, Manitoba, carrying instruments belonging to the American scientist Dr. Millikan, to test the power of the cosmic rays at that altitude. The type of machine used is not stated. It will be remembered that Prof. Piccard has stated that the next balloon ascent into the stratosphere should be made in the neighbourhood of the magnetic pole.

### Officers of the Fleet Air Arm

FLEET orders contain some elaborate instructions regarding the training of Naval and Marine pilots in the Fleet Air Arm. The following are extracts:—

"If," runs the order, "examination of a log book, or a practical demonstration shows that an officer's flying skill has fallen below the average, or if an officer has not flown for a period of six months, the Commanding Officer of the R.A.F. Base or of the ship (other than an aircraft carrier) in which the aircraft is embarked, will arrange for him to have a dual control test at a shore base. If the test is satisfactory the flying practice may proceed."

"If the test is not satisfactory," the order proceeds, "the fact will be reported by the Commanding Officer of

the R.A.F. Base to the Commander-in-Chief, the pilot's Commanding Officer, and the Air Officer Commanding Coastal Area, or other appropriate R.A.F. authority abroad, for the information of Admiralty and Air Ministry, who will consult and decide what action should be taken. A report by signal will be made by the base authority under whom the officer is serving, and the officer is to return to his appointment in general service until his case has been considered."

### F.A.A. Re-equipment

THE Second Cruiser Squadron of the Home Fleet is to receive the first batch of "Osprey" two-seater floatplanes, which are now nearly ready for delivery. Hitherto, Fairey 3.F floatplanes have been used on cruisers. The "Osprey" is used in the Fleet Air Arm as a fighter-reconnaissance machine. The cruisers in this squadron include the *Dorsetshire* (flagship), *Exeter* and *York*.

### Group Capt. Roderic Hill, M.C., A.F.C.

GROUP CAPT. R. M. HILL, M.C., A.F.C., who has recently been Chief Instructor to the Oxford University Air Squadron, has been appointed to the Air Ministry for staff duties in the Department of the Air Member for Supply and Research.



# Airisms from the Four Winds

## The Family Tourists in Trouble

THE "Flying Family," comprising Mr. and Mrs. Hutchinson, their two daughters, Kathryn (aged 8) and Janet (aged 6), Peter Redpath (navigator), Joseph Ruff (mechanic), Gerald Altfilisch (wireless operator), and Norman Alley (cinematographer), who have been engaged in a flight from New York to Edinburgh via Greenland in a Sikorsky amphibian, have met with disaster—fortunately, without loss of life. Having received permission from the authorities to proceed on their journey, they took off from Godthaab, Greenland, on September 7, en route for Angmagalik, and reached Julianepaat that afternoon. Early on September 11 they left for Angmagalik, but that evening wireless S.O.S. signals from the machine were picked up at Angmagalik and by the British trawler *Lord Talbot*, stating they had been forced down in the sea 20-30 miles from their destination. The trawler, which was some 25 miles from the position given, at once proceeded to the rescue. For some time wireless communication was maintained with the amphibian, and then came silence. Some considerable anxiety was felt for their safety, and this increased when no sign of either machine or occupants could be found in spite of a wide two-day search—in which the Watkins Arctic Air Route Expedition, a machine from the Knud Rasmussen Expedition, and Herr Udet, took part. Then, in the early hours of September 13 Capt. T. Watson, of the *Lord Talbot*, discovered the Hutchinsons on the Arctic ice at Ikerusak, about 40 miles S.W. of Angmagalik. The trawler stood by until daylight, when it took off the eight flyers—all of whom were well—and conveyed them to Angmagalik. The Sikorsky was wrecked, and was left behind.

## Prince Bibesco's Air Tour

PRINCE BIBESCO, President of the Fédération Aéronautique Internationale, will shortly undertake a European flight during the course of which he will visit Warsaw, Berlin, Rotterdam, London, Paris and Dessau. The flight will start from Bucharest and the machine to be used will be a Junkers all-metal monoplane fitted with three Hispano-Suiza engines (the port and starboard ones of



**THE FAMILY TOUR:** The Hutchinson family and crew, who attempted a flight from New York to Edinburgh in a Sikorsky amphibian, but came to grief in Greenland. Capt. George R. Hutchinson is shown seated with his wife and two daughters, Kathryn and Janet Lee. The others of the party are Peter Redpath, navigator, Joseph Ruff, mechanic, Gerald Altfilisch, radio operator, and Norman Alley, cameraman.

500 h.p., the centre one of 650 h.p.). The aircraft is registered CV-FAI and has been named *Romania*. Prince Bibesco will be accompanied by Maj. Banciulesco, Secretary of the Royal Rumanian Aero Club, and the machine will be piloted by Maj. Burduloiu. It will be recalled that Prince Bibesco has undertaken a number of flights in the past, and it was only in the spring of this year that he had under consideration an extensive tour in African territory in the same machine and with the same crew. This was only postponed owing to the high temperatures prevailing in Africa at that time of the year.

## Grierson's Russian Flight Banned

MR. JOHN GRIERSON, who recently flew from Lympe to Minsk, has been forbidden by the Soviet authorities to continue his flight beyond Moscow because he reached that city by a route not specified on his permit. He is therefore returning to England.

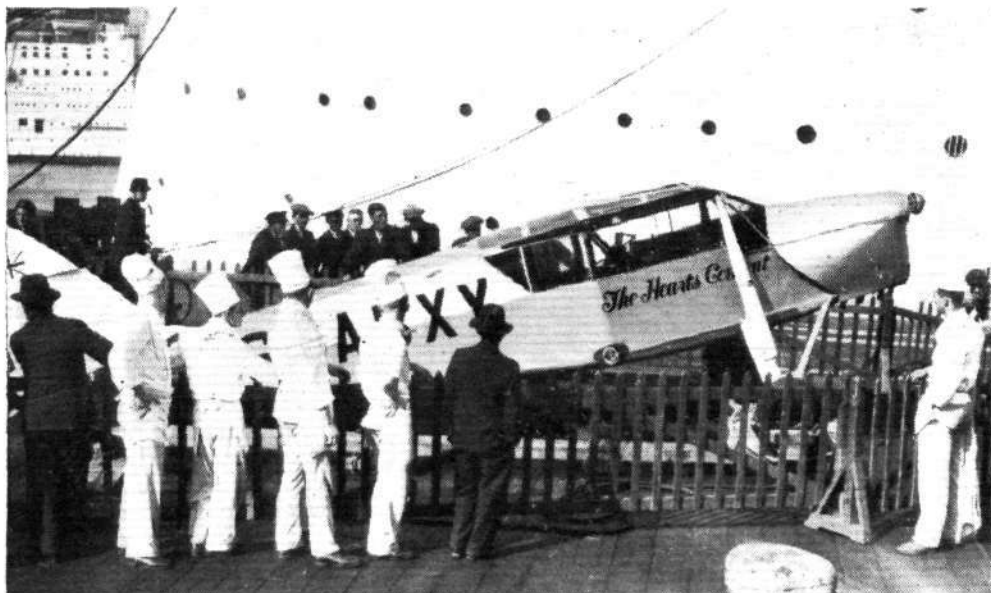
## Kingsford Smith to try Australia-England Hop Again

It is reported that Air Commodore Sir Charles Kingsford Smith will make an attempt early next year to lower the record for a flight from Australia to England.

## Mollison's Return

MR. J. A. MOLLISON arrived at Southampton, in the *Empress of Britain*, on September 8. He was accompanied by Mrs. Mollison, who had flown to Cherbourg to join him earlier in the day. Aircraft escorted the liner into Southampton, where Mr. and Mrs. Mollison were received by the Mayor. Thousands of people gathered at Waterloo Station to welcome Mr. Mollison on his arrival from Southampton, and among those on the platform to greet him were Lady Patricia Moore, Colonel the Master of Sempill and Col. Shelmerdine.

**CULINARY INTEREST:** Chefs from the C.P.R. liner "*Empress of Britain*" interested in J. A. Mollison's "*Puss Moth*" "*Heart's Content*" at Southampton.



# The Industry

## AIRSPPEED "FERRY" IN PRODUCTION

THE progress of our more recently-formed aircraft companies is of especial interest in these difficult times. On a recent visit to Airspeed, Ltd., of York, we were pleased to see considerable productive activity and meet with a reasonable optimism from the directors, Mr. N. S. Norway and Mr. A. H. Tiltman. No less than 105 people are kept busy by the company. The work in hand at the moment is the construction of three more Airspeed "Ferry" 10-seater biplanes, and it is confidently expected—in view of the success of this type under the grueling test, of touring Great Britain with Sir Alan Cobham's fleet—that the three will quickly find a market. The only reports that matter on the performance of the first machine in its joy-riding capacity comprise a satisfactory testimonial. "No spares are required" is a genuine report from those who should know, whilst the facilities embodied in the cabin design in the form of two doors for the speedy discharge and reloading of passengers have at least proved that the "Ferry" as a joy-riding machine "makes the money." It has unloaded its passengers, reloaded the next lot and been off again in 27 sec. The convenience of its fuelling arrangements have also passed the test. Refuelling up to 60 gallons has taken 1½ min. Up to the end of August it was estimated that the "Ferry" had taken up 50,000 passengers, flown 700 hours, and made 5,000 landings, all without a hitch, and, be it remembered, this machine had to bear a lightning progress from the drawing board to its joy-riding tour. Before delivery to Sir Alan Cobham on April 24 this year it had flown just 13 hr. For the first three months after delivery it did 287 hr. 55 min. and carried 36,000 passengers, making landings totalling 3,600, which is equal in number to those made by a machine in a normal life of five years. The "Ferry" is equipped with three "Gipsy" engines and carries ten passengers; it was fully described in FLIGHT for April 15 this year.

It has also been reported that the company are about to build a new aircraft factory at Portsmouth, the city council having rented them a site on the Municipal Aerodrome.

## NICKEL AND ALUMINIUM ALLOYS

IN the July issue of *The Nickel Bulletin*, published by the Mond Nickel Co., Ltd., Millbank, London, S.W.1, there is an article on the wide use of light aluminium alloys which contain nickel, with their place in aeronautical engineering discussed foremost. We have previously described in FLIGHT the characteristics of the well-known "R.-R." group of aluminium alloys patented by Rolls-Royce, Ltd., and their practical development by High Duty Alloys, Ltd., of Slough. These alloys are discussed in the article, as also is the "Birmasil

Special" alloy, which contains up to 3.5 per cent. nickel, and is made by the Birmingham Aluminium Casting Co., Ltd.

## THE MONO-SPAR

A SMALL brochure, issued by General Aircraft, Ltd., Croydon, introduces the mono-spar aircraft briefly but interestingly. The mono-spar system invented by Mr. H. J. Stieger is summarised, construction of the machine described, and a specification given. As the Pobjoy engine is the power unit selected for this type of machine, technical details of that engine are appropriately included in the contents.

## SEEING AT NIGHT

WE have received from the American Airplane & Engine Corporation of New York a brief announcement of a new method of illuminating instruments for night flying originated by their engineer and test pilot, Mr. M. Gould Beard. It is true that instrument reading at night is not as satisfactory as desirable when a direct or indirect lighting system is used. Too much yellow light is before the eyes. Mr. Gould Beard's suggested remedy is to paint the instrument hands, etc., with a compound which becomes luminous in the presence of light rays from the ultra-violet end of the spectrum, and to absorb all light rays except the ultra-violet, which are invisible to the eye, by providing electric light bulbs with ray-filters, fitted to the pilot's head. The ultra-violet rays would point directly on to the instruments. We are informed that tests by the Westinghouse Lamp Co. and the General Electric Co. show that this idea is practical.

## ON CYLINDERS

"CYLINDER Bore Wear," by "Birmid," a small book published jointly in the interests of the automobile industry by the Birmingham Aluminium Casting (1903) Co., Ltd., and the Midland Motor Cylinder Co., Ltd., of Smethwick, Birmingham, is a useful study on the important subject of cylinder bore wear. It is issued for those professionally concerned with automobiles, but the private car owner will find it interest-

ing unless he dislikes information that possibly throws a candid light on the condition of his cylinders.

## NEW HOFFMAN DEVELOPMENT

A PAMPHLET issued by the Hoffman Manufacturing Co., Ltd., of Chelmsford, describes a new development in the ball and roller bearing whereby anti-friction principles can be applied to straight-line motion as readily as to rotary motion. The new type is called the Sun and Planet Friction Eliminator, and it comprises a "contact" or load ball or roller, free to rotate about its own axis and super-imposed eccentrically on a freely rotating raceway or track; the whole being suitably housed in complete unit form. Of the two section drawings below, Fig. 1 represents one of a series of complete units capable of carrying loads of from 250 to 6,000 lb. and designed to operate with reciprocating mechanisms. (A) is the contact or load ball, (B) the raceway or endless track which rotates on the balls (C) running on the fixed raceway (D). The housing (E) has a removable plate (F) having a hole eccentrically disposed to position the contact ball. When a tangentially moving load is applied to the top of this contact ball by either a flat or grooved track, it rolls on the endless track without perceptible frictional contact with the plate (F) resulting in a load carrier of an almost frictionless nature.

Fig. 2 illustrates one of a series of simple roller forms of the eliminator designed to carry loads of from 1,500 to 7,500 lb. In this type the contact roller (A) is eccentrically mounted above and in contact with two rotating raceways or tracks (B) and (B1) arranged concentric with one another. These tracks revolve on the balls (C) running on the fixed raceways (D) and (D1). The housing (E) has a removable plate (F) provided with an eccentrically disposed hole to position the contact roller (A). In this type the roller makes contact with separate races, thus allowing it to revolve in a frictionless manner while each track revolves at its appropriate speed.

The two forms illustrated offer to designers complete units requiring the minimum amount of fixing and capable of operating with sliding and reciprocating mechanisms with the same efficiency as is obtained with ball and roller bearings in revolving mechanisms. These eliminators occupy very little depth compared with their load carrying capacity, and have the further advantage of being self contained and oil retaining.

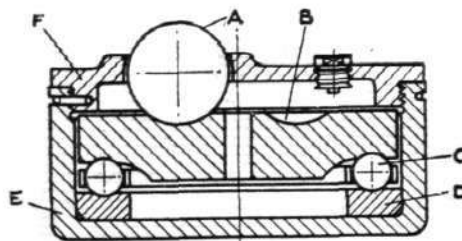


FIG. 1.

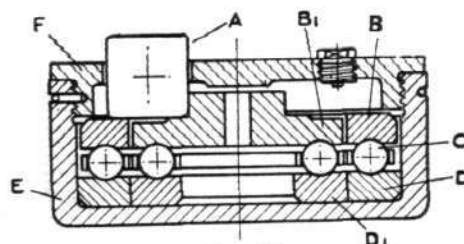


FIG. 2

The Hoffman "Sun and Planet" Friction Eliminator.



# THE ROYAL AIR FORCE

London Gazette, September 5, 1932

## General Duties Branch

Flight-Cadet L. M. Middleton having successfully passed through the Royal Air Force College, Cranwell, is granted a permanent commission as a Pilot Officer with effect from and with seny of July 23.

The follg. officers are granted permanent commissions in the ranks stated (September 1):—

**Flight Lieutenants.**—I. McL. Cameron, B. G. Farrow, L. T. Keens, R. J. P. Morris, H. J. Walker.

**Flying Officers.**—V. S. Bowling, A. F. Britton, S. O. Bufton, H. H. Chapman, W. J. Crisham, T. W. G. Eady, W. G. H. Ewing, O. I. Gilson, C. V. Howes, W. H. Jones, R. C. Jordan, H. D. McGregor, W. D. J. Mitchie, J. A. S. Outhwaite, C. Stephenson, G. K. Tulloch.

Lt. Simon Borrett, R.N., is re-attached to the R.A.F. as a Flying Officer with effect from August 22, and with seny. of April 19, 1927.

The follg. Pilot Officers on probation are confirmed in rank:—E. B. Waddy (May 13); A. M. Carey (August 17).

The follg. Pilot Officers are promoted to the rank of Flying Officer:—F. A. Pearce (June 20); K. Lea-Cox (July 5); V. P. J. G. Doherty (July 29).

Flt.-Lt. E. C. Delamain, M.C., is restored to full pay from half pay (August 24); Flt.-Lt. W. G. Abrams is placed on the half-pay list, Scale A, (August 29);

Flt.-Lt. W. D. Gairdner, D.F.C., is placed on the half-pay list, Scale A (August 30); Flt.-Lt. B. W. Knox is placed on the half-pay list, Scale A (August 31);

Flt.-Lt. W. R. Castings, M.B.E., is placed on the retired list (September 1); Sqd.-Ldr. N. F. D. Buckridge is placed on the retired list (September 3).

The follg. are transferred to the Reserve (September 2):—CLASS A.—Flt.-Lt. P. H. Smith, F/O. L. W. Howard, F/O. A. Le R. Sabine Upton. CLASS C.—F/O. J. W. Smith, F/O. J. C. B. T. nling.

F/O. C. W. Black relinquishes his short service commission on account of ill-health (September 3); F/O. H. C. O'Loughlin is dismissed the Service by sentence of General Court Martial (July 5).

## Stores Branch

Flt.-Lt. J. C. Shakeshaft is placed on the retired list (September 2).

## Dental Branch

The follg. are granted non-permanent commissions as Flying Officers with effect from and with seny. of August 22:—H. Keggin, L.D.S., V. H. Weeks, L.D.S.

## Chaplains Branch

The Rev. G. H. Piercy, M.A., resigns his short service commission (September 5).

## Assistant Provost Marshal

Flying-Officer on probation (Hon. Flight-Lieutenant) C. R. Richdale is confirmed in rank (August 10).

## PRINCESS MARY'S ROYAL AIR FORCE NURSING SERVICE

Sister Miss E. L. M. Graham is placed on the retired list at her own request (September 1); Staff-Nurse Miss I. G. Duguid resigns her appointment (September 1).

## ROYAL AIR FORCE RESERVE RESERVE OF AIR FORCE OFFICERS

### General Duties Branch

The follg. Flying Officers are transferred from Class A to Class C:—P. E. Grenfell (July 18); A. P. Wayte (August 21).

P/O. P. T. Petley is transferred from Class AA (ii) to Class C (August 22). F/O. E. H. Armitage relinquishes his commission on completion of service (September 5); F/O. R. R. Spencer, M.M., resigns his commission (August 25).

### Medical Branch

Flt.-Lt. J. J. Clarke is removed from the Service (August 30).

## AUXILIARY AIR FORCE

### General Duties Branch

No. 601 (COUNTY OF LONDON) (BOMBER) SQUADRON.—R. J. Bushell is granted a commission as a Pilot Officer (August 10).

## ROYAL AIR FORCE INTELLIGENCE

**Appointments.**—The following appointments in the Royal Air Force are notified:—

### General Duties Branch

**Wing Commander.**—G. H. P. Padley, to Royal Air Force Depot, Aboukir, Middle East, 26.8.32. For Engineer duties vice W/Cdr. Sir C. J. Q. Brand, K.B.E., D.S.O., M.C., D.F.C.

**Squadron Leader** S. L. Quine, M.C., to Headquarters, R.A.F., Middle East, Cairo, 26.8.32. For Air Staff (Signal) duties, vice S/Ldr. V. H. Tait.

**Group Captains:** W. S. Douglas, M.C., D.F.C., to Special Duty List, 28.7.32. On appointment as Instructor at the Imperial Defence College, vice G/Capt. B. E. Sutton, D.S.O., O.B.E., M.C. R. M. Hill, M.C., A.F.C., to Air Ministry (Dept. of A.M.S.R.) 1.9.32. For Engineer Staff duties.

**Flight Lieutenants:** A. J. L. Hughes, to No. 10 (B) Squadron, Boscombe Down, 29.8.32. H. C. Marett, to No. 3 Flying Training School, Grantham, 31.8.32.

**Flying Officers:** A. F. C. Booth, to No. 99 (B) Squadron, Upper Heyford, 29.8.32. H. V. Satterly, to No. 99 (B) Squadron, Upper Heyford, 30.8.32. D. H. F. Barnett, to Station Flight, Duxford, 2.9.32. G. J. Pawson, to No. 24 (Communications) Squadron, Northolt, 1.9.32. E. M. Morris, to No. 22 (B) Squadron, Martlesham Heath, 1.9.32.

**Pilot Officers:** G. Atkinson, to No. 4 (A.C.) Squadron, South Farnborough, 29.8.32. G. A. Bartlett, to No. 13 (A.C.) Squadron, Netheravon, 29.8.32. W. E. Cameron, to No. 23 (F) Squadron, Kenley, 29.8.32. R. L. Crossman, to School of Army Co-operation, No. 16 (A.C.) Squadron, Old Sarum, 29.8.32. J. W. Donaldson, to No. 1 (F) Squadron, Tangmere, 29.8.32. M. H. Dwyer, to School of Army Co-operation, No. 16 (A.C.) Squadron, Old Sarum, 29.8.32. D. Y. Feeny, to No. 111 (F) Squadron, Hornchurch, 29.8.32. J. Grandy, to No. 54 (F) Squadron, Hornchurch, 29.8.32. J. H. Heyworth, to No. 54 (F) Squadron, Hornchurch, 29.8.32. P. A. Hunter, to No. 25 (F) Squadron, Hawkinge, 29.8.32. A. A. Saw, to No. 99 (B) Squadron, Upper Heyford, 29.8.32. W. L. Stewart, to No. 4 (A.C.) Squadron, South Farnborough, 29.8.32. R. B. Young, to No. 13 (A.C.) Squadron, Netheravon, 29.8.32. J. F. L. Zorn, to School of Army Co-operation, No. 16 (A.C.) Squadron, Old Sarum, 29.8.32. J. N. Jefferson, to No. 13 (A.C.) Squadron, Netheravon, 29.8.32. A. M. Rodgers, to No. 26 (A.C.) Squadron, Catterick, 29.8.32. W. M. Keddie, to No. 4 (A.C.) Squadron, South Farnborough, 29.8.32. W. L. Stedman, to No. 111 (F) Squadron, Hornchurch, 29.8.32.



## Long Service and Good Conduct Medal—Awards

The Long Service and Good Conduct Medal has been awarded to the undermentioned airmen:—

S.M.1 Donaldson, R., and Gee, A. H.: S.M.2 Littleproud, C., Parish, A. J. V., Phillimore, R. F., and Ripley, C.; F./Sgt. Crisp, J. L., Dracup, E., Evans, F., D.F.M., Greenstreet, T. E., Hall, A. F., Harrison, W. H., Inglis, H. T., A.F.M., and Williams, J.; Sgts. Cowton, A. E., and Harris, H. J. R.; Cpl. Bremner, A.; L.A.C. Edwards, C., Patman, B. H., M.M., and Williams, H.

## Opening of R.A.F. Station at Abingdon

Station Headquarters, Abingdon, will be formed with effect from October 8, 1932. No. 40 (B) Squadron will move from Upper Heyford to Abingdon with effect from October 8, 1932. The Station Flight, Upper Heyford, will move to Abingdon with effect from October 28, 1932.

## Revision of Officers' Pay

The Air Ministry announces:—

The average of the cost-of-living index figures for the six months ending July 31, 1932, would, under the formula prescribed in A.M.O. A.728/25 as revised by A.M.O. A.193/31, normally entail a reduction in current rates of pay, half-pay and retired pay of officers as from October 1, 1932. His

**Acting Pilot Officers:** The undermentioned Acting Pilot Officers are posted to No. 4 Flying Training School, Abu Sueir, on 26.8.32. H. G. L. Allsop, R. C. Beaven, R. M. Bradley, C. F. S. Fraser, F. W. Hilton, D. R. Keiller, H. S. Miles, B. R. Moeran, G. J. Spence, H. Stanton, N. W. Wakelin and R. H. Young.

### Stores Branch

**Flight Lieutenant** L. V. Hirst, to Station Headquarters, Abingdon, 1.9.32. **Flying Officers:** O. D. Allerton, to Aircraft Park, India, Lahore, 8.8.32. H. A. Sudbury, to R. A.F. Record Office, Ruislip, 1.9.32.

### Accountant Branch

**Flight Lieutenant** R. G. Dyer, to Station Headquarters, Abingdon, 1.9.32.

### Medical Branch

**Flight Lieutenants:** R. H. Stanbridge, to No. 1 School of Technical Training (Apps.), Halton, 1.9.32. H. W. Corner, to Station Headquarters, Kenley, 1.9.32. J. Magner, to Princess Mary's R.A.F. Hospital, Halton, 1.9.32. L. Freeman, to Station Headquarters, Abingdon, 1.9.32. (Hon. S/Ldr.) J. G. Skeet, to School of Army Co-operation, Old Sarum, 31.8.32. A. E. Vawser, to Royal Air Force Depot, Uxbridge, 3.9.32.

**Flying Officers:** G. A. M. Knight, to Medical Training Depot, Halton, 22.8.32. J. F. Ziegler, to Medical Training Depot, Halton, 5.7.32. R. K. Muir and F. H. Peterson, to Medical Training Depot, Halton, 5.8.32. On appointment to a Short Service Commission.

### Dental Branch

**Flying Officers:** H. Keggin, to Medical Training Depot, Halton, 22.8.32. V. H. Weeks, to Medical Training Depot, Halton, 22.8.32.

## NAVAL APPOINTMENTS

The following appointments have been made by the Admiralty:—

**Lieutenants:** (Flying Officers, R.A.F.).—P. H. Havers, to *Glorious* for 408 Flight; M. Bruce, to *Victory*, for R.A.F. Base, Gosport; J. D. Hayes, to *Courageous*, for 445 Flight; G. B. Kingdon, to *Victory*, for R.A.F. Base, Gosport; E. W. Lawson, to *Courageous*, for 441 Flight; N. G. R. Crawford, to *Glorious* for 462 Flight; and M. Johnstone, to *Courageous* for 464 Flight.

**Sub-Lieutenants** (Flying Officers, R.A.F.).—I. R. Sarel, to *Victory* for R.A.F. Base, Gosport; J. D. Stead, to *Glorious* for 441 Flight.

Majesty's Government have, however, had the whole question of the remuneration of the services of the Crown under review, and have decided that emoluments should now cease to vary automatically with changes in the index figure, but shall be consolidated. They have further decided that, subject always to the overriding consideration of the national financial position, final consolidation shall be deferred until April 1, 1934, and that in the meantime the rates shall be stabilised at the current reduction from standard rates, viz., 11 per cent. (which corresponds to an index figure of about 49), subject to the proviso in the following paragraph. If, during the above period of stabilisation, the index figure remains below 35 or above 60 for six consecutive months, the resultant situation will be reviewed in the light of all relevant considerations, including the cost of living.

### No. 13 (A.C. Squadron

No. 13 (A.C.) Squadron moved from Netheravon to Odiham on August 22, and will return to Netheravon on September 17, 1932.

### The Royal Air Force Memorial Fund

The usual Meeting of the Grants Committee of the Fund was held at Iddesleigh House, on September 8. Mr. W. S. Field was in the Chair, and the other Member of the Committee present was Mrs. F. Vesey Holt. The Committee considered in all 20 cases, and made grants to the amount of £252 4s.



OPENING A CHOCOLATE AIR DELIVERY SERVICE : Above, Lord Apsley starting the " Gipsy " engine by swinging the propeller. Below, girls loading 4 cwt. of chocolates into the " Puss Moth." (FLIGHT Photos.)

### A CHOCOLATE DELIVERY VAN

ON Tuesday, September 13, the well-known firm of J. S. Fry & Sons, Ltd., of Bristol, inaugurated an aerial delivery van service by sending 4 cwt. of chocolates from the Bristol factory to London (Heston) in a " Puss Moth " piloted by F/O. Cope. At present the firm has arranged with Mr. Norman Edgar, of the Bristol airport at Whitchurch, to hold continuously at their service an aeroplane for delivery whenever it is wanted. If the experiment proves a success, the firm will purchase its own aircraft.

It had been hoped that Col. Shelmerdine, Director of Civil Aviation, would perform the opening ceremony, but he was unable to do so, and Lord Apsley took his place, having flown over from Yate in his own " Spartan." The private aerodrome of Fry & Sons is at Somerdale, immediately adjoining the huge factory, and we are authorised to extend to all private owners of aircraft a cordial invitation to visit Somerdale at any time and to inspect the Fry factory.

Although the first delivery was over a route served well by railways, the " Puss Moth " was able to accelerate the delivery very materially. From leaving the factory at Bristol until the chocolates were delivered in the London shop, a period of less than 2 hours elapsed. The actual flight from Somerdale to Heston was made in 45 minutes. There a delivery van took over the chocolates and carried them to London.

Fry & Sons do not look upon delivery by air as a strictly economical proposition, but consider it worth while to be able to give prompt delivery in certain cases, even if such delivery reduces the profits materially. They are to be congratulated on their enterprise, and it is to be hoped that many other business firms will follow the good example.

#### Performance

LT. COL. J. D. BLYTH, who for some six years has been on the Technical Staff of the Gloster Aircraft Co., Ltd., has had to resign his post there for reasons of health. Col. Blyth has specialised for several years on performance estimates and calculations, and readers of FLIGHT have had the benefit of his experience in the form of articles in our Monthly Technical Supplement, THE AIRCRAFT ENGINEER. Col. Blyth is now free to undertake performance estimates for any firm or individual desiring an independent check on their own calculations, and communications addressed to the offices of FLIGHT will be forwarded to Col. Blyth without delay.

### IMPORTS AND EXPORTS

AEROPLANES, airships, balloons and parts thereof (not shown separately before 1910).

For 1910 and 1911 figures see FLIGHT for January 25, 1912.

For 1912 and 1913, see FLIGHT for January 17, 1914.

For 1914, see FLIGHT for January 15, 1915, and so on yearly, the figures for 1930 being given in FLIGHT, January 16, 1931.

	Imports.		Exports.		Re-exports.	
	1931.	1932.	1931.	1932.	1931.	1932.
	£	£	£	£	£	£
Jan. . .	7,965	2,456	142,596	122,942	1,074	863
Feb. . .	3,303	2,503	110,587	181,482	1,293	90
Mar. . .	5,615	1,946	83,088	167,195	3,441	200
April . .	2,216	622	213,401	142,145	530	1,128
May . .	1,964	1,747	275,382	138,356	108	5
June . .	6,780	398	78,298	126,330	361	125
July . .	1,790	1,070	177,006	142,702	131	120
Aug. . .	3,556	511	153,834	111,073	2,316	3
	33,189	11,253	1,234,192	1,132,225	9,344	2,534

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### PUBLICATIONS RECEIVED

*Aeronautical Research Committee Reports, No. 1358. Eddy Systems Behind Discs.* By T. E. Stanton and D. Marshall. January, 1930. Price 1s. net. London: H.M. Stationery Office, W.C.2.

*Arnold Adair with the English Aces.* By Col. Laurence Driggs. London: John Hamilton, Ltd. Price 3s. 6d. net.

*The Pirate Airship.* By John Noy. London: John Hamilton, Ltd. Price 3s. 6d. net.

*Arnold Adair with the French Aces.* By Col. Laurence Driggs. London: John Hamilton, Ltd. Price 3s. 6d. net.

*Motorless Flight.* Edited by J. R. Ashwell-Cooke. London: John Hamilton, Ltd. Price 7s. 6d. net.

*Stabilisateur Automatique pour Aéroplane à Actionnement Pneumatique.* By L. Marmonier. 146, Avenue Felix-Faure, Lyons, France.

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### AERONAUTICAL PATENT SPECIFICATIONS

Abbreviations: Cyl. = cylinder; I.c. = internal combustion; m. = motors. (The numbers in brackets are those under which the Specification will be printed and abridged, etc.)

#### APPLIED FOR IN 1931

Published September 15, 1932

- 10,921. E. B. KILLEN. Pneumatic tyres and their fitments to aircraft. (378,852.)
- 15,644. ECLIPSE AVIATION CORPORATION. Engine-starting mechanism. (378,990.)
- 16,772. F. S. WIGLEY and L. F. AUSTING. Braking means for aircraft. (379,017.)

#### APPLIED FOR IN 1932.

Published September 15, 1932

- 10,518. CARBURATORI MEMINI SOC. ANON. Carburettor for use with aircraft engines. (378,871.)